Arris and Gale Lectures

ON THE

RELATION OF EXPERIMENTAL PHYSIOLOGY TO PRACTICAL MEDICINE.

Delivered at the Royal College of Surgeons, June, 1882,

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LECTURE III.—PART I.

THE DEPENDENCE OF THE MODERN RATIONAL METHODS OF TREATMENT UPON A KNOWLEDGE OF PHYSIOLOGY.

MR. VICE-PRESIDENT AND GENTLEMEN,—Were I to attempt to explain in all its completeness the relationship borne by experimental physiology to the rational practice of medicine, it would be necessary to devote several lectures to the subject. In to-day's lecture I must therefore restrict my observations to that part of the question which is just now most nearly before my mind—namely, What has vivisection done towards the advancement of modern practical medicine? Over and over again we have been challenged by the opponents of science to give "one conclusive example where experiment has been of direct use to practical medicine." To anyone familiar with the history of scientific medicine there can be no difficulty in finding numerous such instances, and, as a matter of fact, many examples have from time to time been given by various writers; but to make these cases satisfactory and conclusive to persons who know but little, and do not care to know more, of the true bearings of the question, is a very difficult matter. Such a test is totally wrong and misleading when applied to the utility of experiment on the lower animals. The matter must be viewed from a wider standpoint than that embracing only single instances of direct benefits accruing from specific experiments.

The primary object of experimental research is to advance physiology—the science which teaches us the uses of the various organs and textures of the body in the normal state, and how the working of the animal economy is carried on in health. The value of physiology depends on the knowledge it gives us of the normal operations of the body, and not on the few cases in which certain experiments happen to aid us in understanding disease, and thus directly promote the practice of the healing art. Our argument is rather this: Physiology is the foundation of both pathology and therapeutics, which together make up medicine; and therefore rational medicine depends directly upon physiology for its strong growth and genuine progress.

Now physiology cannot advance without vivisection; experiment on living animals is as essential to its progress (though far less general in application) as is dissection for the study of anatomy. Therefore experimental research, including that carried out on living animals, is as necessary for the progress of the practice of medicine as is experimental research in any other science for its advancement and application to daily life. The immediate object of physiological experiment is, then, not to make out new practical methods of treating disease, but rather to attain to a more complete and sound understanding of those general laws which govern the actions of the living body in health—laws which must ever form the only firm basis of the knowledge of disease, and the only sure guide to judicious modes of treatment.

The rational practice of physic, as it is carried on in the present day, is in a great measure the outgrowth of a slowly growing physiological science, upon which it depends, and from which it cannot be separated. There is hardly a thought that can strike a practitioner that does not in some way depend upon physiological facts which have been elicited by experimental research. I do not mean to state that the accurate and painstaking observation of clinical facts and post-mortem appearances has not done much—probably more than anything else—to bring our medical knowledge to its present standpoint; but I contend that clinical observation and post-mortem experience without physiological research would never have been able to advance medicine to the position it holds in modern times; and, on the other hand, I believe that physiological study, even unaided, could arrive at a rational system of treatment. No doubt both clinical study and pathological observation have not only helped practical medicine onward, but they have also greatly contributed to the progress of physiology itself. In fact, I find it impossible to separate exact clinical and pathological work from scientific research of a purely physiological nature. Is not all treatment more or less experiment? And is not this particularly true of purely empirical treatment? Nowadays, where is the pathological laboratory in which a mere record of post-mortem changes in the human subject is not aided by experimental inquiry into pathological changes in the lower animals?

In assigning to each department of medical study its due meed of credit, their relative ages must be borne in mind. It has been asserted that all the improvements brought about by experimental research would have been introduced with equal certainty had experiment on living animals never been attempted. Observation, experience, and thought would have attained all the results we now enjoy. Possibly so; but when? Clinical observation can be traced back some three or four thousand years, and even then it started with a rich legacy of traditional knowledge. Experimental physiology as a science was only born about a hundred years ago. If we compare the progress made by medicine during the last hundred years with that of the previous thousand years, we shall be able to judge of the relative rates of progress of the two systems of working. The difference seems to me to lie in the fact that unaided clinical observation—that is, practically the empiric method—goes the wrong way about arriving at a conclusion. It says, try this or that or the other remedy, and note which is successful. This is like a boy who will not systematically work out his sum in long division, but prefers to arrive at the quotient by guessing probable numbers one after the other, and multiplies them to see which is the right one; he may, after much trouble, by chance hit upon the correct answer, but he more commonly fails; and most probably the boy who works out his sum in the straightforward way will far sooner arrive at the desired result. Physiology moves onwards by means of accumulating and arranging facts which have borne the test of experiment. Empiricism accumulates observations which, without further test, are used to formulate theories that, as likely as not, are unfounded, and are as apt to mislead as to advance medical knowledge. When asked to give an example of the utility of experimental physiology in the treatment of disease, I feel inclined to answer with another question: Is there one reliable system of diagnosis or one mode of treatment now in use which has not been modified or improved, if not directly suggested, by physiological knowledge? And I must certainly confess that I know none. Before attempting to bring forward single cases as instances where certain experiments have been of direct use to medical and surgical practice, I shall examine the question from the opposite standpoint, by taking some simple case of every-day occurrence, and glancing at its routine examination and treatment. We can then see to what extent vivisection influences the practitioner in the details of his daily work. We may safely take a case at random; one not associated very closely in our minds with any brilliant experimentation will perhaps be the best. The following case, which I happen to have seen recently, will do as well as any other.

Not long since I found a policeman examining a poor woman who was said to have had a "stroke." She lay speechless and motionless on a door-step; she showed no signs of convulsions, no stertorous breathing, no frothing at the mouth. So the policeman hesitated to make a diagnosis, thinking, no doubt, that other causes besides a "stroke" might give rise to such a want of muscular irritability. Gently shaking her had no effect, but on his applying some form of stimulus to the finger she showed signs of returning consciousness, and the *left* leg and arm moved slightly. The right eye remained partly open, the other was closed; when the eyelid was raised, so as to expose the pupil to the sunshine, some movement of the muscles of expression was observable, but only on the left half of the face, to which side the mouth was slightly drawn. This became more obvious when some drops of cold water were thrown at her. The pulsation of the temporal artery was visible. Putting my ear to the top of her chest I found the heart beating violently, and heard a prolonged blowing noise instead of the sharp clear tone of the second heart-sound.

Without much effort my thoughts had passed from the pulsating temporal artery to the heart, and from the imperfect aortic valves to the middle cerebral artery, where I fancied an embolus must be impacted. I told the policeman the woman had better be taken to a hospital, which was done accordingly.

How was it that I was able confidently to advise the policeman about this poor woman, though he was no doubt very experienced in these sort of cases? What aid did experimental inquiry give me in arriving at my conclusion?

Well, in the first place, I knew that the paralysis was restricted to voluntary movements, without the motions belonging to organic life being in the least interfered with. Vivisections of the earliest times informed me that this was quite possible as a result of some injury of the nerve centres, and experiments of more recent date enabled me to exclude a large part of these centres from being the seat of the lesion. That there was no local injury of the spinal cord in the dorsal region I knew, both from the loss of consciousness and from the fact that the reflex action of the lower limbs was not intensified, and vivisections informed me they would have become so had this been the case. I could see by the movement of the left leg that only one side of the body was paralysed; and then the look of the face distinctly showed that part of the seventh cranial nerve, which Charles Bell's vivisections taught me to know to be motor in function, was paralysed. This fact, together with the ready reflex action of the eyes and the sound side of the face, which I knew by vivisection required unimpaired sensory nerves, showed me that it could not be a case of profound toxæmia such as the policeman supposed to be possible. I knew by vivisections performed by many English physicians and physiologists, some of whom are still among us, that the second heart sound depended on a certain action of the aortic valves. Not hearing the familiar sound, I concluded that the aortic valves must be diseased. Experiments on living animals concerning coagulation of the blood within the vessels informed me that when the lining coat of a bloodvessel, or the heart, is diseased little clots are often formed at the diseased or injured part. I knew, further, from Virchow's classical experiments on living animals, that emboli introduced into the arterial blood-current often become impacted in the middle cerebral artery, and that the embolic blocking of a brain-artery, by shutting off the blood from the area it supplied, caused a sudden arrest of function of the part. Although the nerves going to the various paralysed muscles arose from very different regions of the cord and brain, I know by vivisections that there is a part of the cortex of the brain the injury of which would cause them all to be powerless. Clinical observation and pathological anatomy would have informed me that it was probably a brain lesion; but had it not been for the light thrown by vivisection on the few facts I was able thus hurriedly to observe I should not have been much wiser than any other bystander, and could only have agreed with them that it was a "stroke" of paralysis.

Now let us consider a surgical case. The other day I mentioned some of the old methods of operation, when buttons of vitriol, caustics, steel compresses, boiling oil, hot irons, a copious receptacle for catching the blood, and elaborate machines, such as those on the table, were among the apparatus the surgeon had to prepare for operation.

Let us now turn to a modern operation, and let us consider whether our present *modus operandi* is influenced by the light which experimental inquiry has shed on physiology during the last century. I shall not attempt to recount any one of the numerous cases which the surgeon now approaches with perfect confidence of undoubted success, although a comparatively short time back they would have been looked upon as completely beyond his reach. Many such cases, which formerly would have led either to certain death, enduring misery, or life-long inconvenience, must occur to the minds of all here. Let us take a case of disease or injury requiring the amputation of a portion of an extremity. In the first place the patient is made quite insensible to pain by the administration of chloroform, or some such drug; not only is he insensible to pain, but also unconscious to all that he formerly would have been obliged to see and hear, by no means the least painful part of the operation. With regard to the use of anæsthetics, I shall not delay, for vivisection cannot claim to be the sole means of introducing this great boon to modern surgery, although experiment on living animals played a most prominent part both in their discovery and their introduction into common use in this country, as has been frequently pointed out.

The next step in the operation is to make the part bloodless. This can be done in the following way:—By holding up the limb for some time to facilitate the flow of blood from the veins, and thus to reduce the blood pressure within these vessels, by which means the local vaso-motor mechanisms are brought into play with considerable force, so as to reduce the quantity of blood in the limb, allowing only a limited flow to continue. Then Esmarch's elastic bandage may be applied, to further empty the minute bloodvessels. By this means the textures to be cut into may be made to remain, during the active part of the operation, as bloodless as those of a corpse. The advantage of having no dread of hæmorrhage to induce haste, no blood to impede the view, or render the instruments difficult to handle, can hardly be over-estimated. So that, even apart from the all-important point of preventing the weakly patient losing blood, this bloodless surgery must be regarded as one of the most important improvements in modern methods. And how far may it be traced to vivisection? We know that the contractility of the bloodvessels, and the high pressure of the blood in the arteries, as well as the motions of the heart and the course of the blood, were demonstrated by this means, and is not this the key of the whole matter? But further, were we not familiar by vivisections, and by the removal of tissues from the bodies of recently killed animals, with the fact that the textures can retain their life and function for a considerable period after their normal circulation has ceased, who would have dared to suggest that the entire limb of a living man should be deprived of its blood during the time occupied by a tedious operation?

Then, with regard to the means of permanently arresting the escape of blood from the wounded vessels. We have no longer a receptacle for blood; indeed, the handful of sawdust on the floor that was fashionable when I began medicine is no longer used. John Bell, after giving a graphic and fearful account of the terrors of hæmorrhage, says, "Is not this fear of hæmorrhagy always uppermost in the mind of the young surgeon? Were this one danger removed, would he not go forward in his profession almost without fear?" I do not think this fear ever crosses the mind of the young surgeon now, so rare are deaths from external hæmorrhage. I have never seen one death from such loss of blood in the twenty years that have passed since I first commenced to study medicine. Why has the dread of bleeding ceased to chill the heart of the surgeon when entering on an operation? Vivisection has not done all, but it has done much to help us to attain to this degree of excellence in our present methods.

The use of the ligature can be traced so far back in the history of medicine that it is impossible to say whether it was first used upon man or animals. Very definite accounts of it occur in the writings of the Arabians of the tenth or twelfth century. Although its value, or rather its great convenience, in military surgery was recognised and extolled by Ambrose Paré, the inestimable value of the ligature remained unknown in general practice for nearly a hundred years after his time. This was, no doubt, partly on account of the fact that experiment was not used to test its efficacy and mode of action until comparatively recently. By vivisections the chief errors in its application were by slow degrees removed, and now we rest almost exclusively on the improved method of tying arteries as the means of arresting the flow of blood from a recent wound. First of all the nerves used to be included in the ligature. Vivisection showed the folly of thus attempting to confine the animal spirits, or nervous fluid, and practice proved that thus tying the nerves always caused excruciating agony, and often gave rise to fatal spasms (tetanus), which made ligature to be dreaded even by its warmest advocates. In the second place the wide ligatures which were made of soft material and lightly tied over corks, &c., often failed to check the bleeding. Dr. John Thomson, of Edinburgh, was among the first who made experiments on this subject, and I believe much of the credit given to Jones really belongs to him. Following the precepts taught by Thomson, Jones also made numerous experiments on animals. He found that a hard thin ligature applied so as to cut the elastic inner coats and leave the tough outer wall of the vessel uninjured, was much more surely followed by a deposit of "coagulable lymph," and by more satisfactory occlusion of the vessel than when one or several soft bands were tied lightly on it. This fact hardly gained the

universal and complete confidence of surgeons until further vivisections performed by Lister, Brücke, and others, showed that the smooth lining of the vessel was the chief factor in preventing coagulation, and that intravascular clots are formed most readily when the lining of the vessel was injured and the blood ceased to move. Instead of timidly tying a loose knot for fear of injuring the vessel, the surgeon now ties a firm ligature so as to rupture its lining coat, or at least to apply sufficient pressure to cut off its nutrition and thus cause its death in order to make a starting-point for the coagulation which must occur to secure its permanent closure.

Another great objection to the old ligatures was the delay they caused in coming away. This wearied the surgeon and exhausted the patient. The ligature was sometimes pulled away before its time, and this often gave rise to the much-dreaded secondary hæmorrhage. In counselling that the ligature be left alone, Petit adds the remark, as a kind of consolation, that he finds them generally to come away of themselves in about two or three months. Of this sort of annoyance we hear nothing now. Experiment on the lower animals has taught us the existence of the lymphatics and their absorbing power. Experiments upon living animals has shown us that this power of absorbing extends to such things as catgut, a material readily made into strong cords. Properly prepared catgut is therefore almost universally used as a ligature, the ends are cut off short, and the knot is left to be absorbed and never once thought of again.

And, lastly, the edges of the wound are brought together with stitches of silver wire, silk, catgut, horsehair, according to whether much or little traction or more or less coaptation is demanded. Undue tension, compression, gaping, and irregularity of the wounded part, are all avoided; a means of exit for serous oozing, &c., is provided by non-irritating drainage-tubes. The antiseptic dressings are applied carefully and exactly. Large tents, dossils of lint, rude compresses are not thought of. The aseptic wound heals without swelling or inflammation. No throb disturbs the patient's rest. No drop of pus comes from the cut surface. Fever, tetanus, pyæmia, second hæmorrhage, as well as the old dread of the bleeding during the operation, are all nearly forgotten.

To the minds of the surgeons of the last century such a method of operation and such a mode of healing would probably suggest the longed-for magic remedies by means of which many hoped to replace the cauteries, caustics, compresses, and filthy dressings with which they strove to heal the open wounds of their exhausted and cachectic patients.

THE RIDER'S SPRAIN.

By HENRY MORRIS, M.A., F.R.C.S.,
SURGEON TO, AND LECTURER ON SURGERY AT, THE MIDDLESEX HOSPITAL.

A GOOD many of our national sports and amusements are known to give rise to certain accidents and particular morbid changes. Thus, "camping out" occasionally provokes an enlargement of the bursa over the trochanter major, owing to the hardness of the ground upon which persons who go in for this luxury sometimes have to sleep. Rinking has frequently led to Pott's and Colles' fractures. Bicycling has been accused of inducing hernia in its devotees, as rowing has heart disease. Lawn tennis leads frequently to sprain of the knee, or of one of the muscles of the calf. Fractured clavicles and other accidents even of a fatal character are unfortunately too frequent in the hunting-field. I have, however, met with two classes of cases, neither of which are sufficiently well recognised at present—these I may call for the sake of convenience "the lawn tennis arm" and "the rider's thigh." The former is a sprain of the pronator radii teres muscle, and the latter of the adductor longus.

The lawn tennis arm is the result, I believe, of the frequent back stroke, whereby the forearm is brought into rapid and forcible pronation. The condition is slight swelling with tenderness on firm pressure along the course of the pronator, and pain in bringing the muscle into action, but as a rule not otherwise. I have of late seen three such cases, and one gentleman said he had known of several lawn tennis players affected in the same way. The symptoms soon disappear if the movements of pronation and supination are restricted for a few weeks, and the forearm is enveloped in an elastic bandage or a firm elastic webbing.

The rider's thigh or sprain occurs very frequently; so frequently, indeed, in a mild form that the surgical instrument maker is applied to for some remedial support, though the injury is not thought severe enough to consult the surgeon about it. It is caused generally by the horseman suddenly making a strong grip owing to his horse rearing, shying, slipping, or unexpectedly taking a jump. In this way the adductors are sharply and forcibly brought into action; and some of the fibres of one of them, generally the adductor longus, yield at a short distance from their origin. The pain at the time of the injury is often very trivial, and not sufficient to cause the horseman to dismount; but subsequently more pain is felt in walking; rather severe pain attends the act of mounting, and still more severe, sometimes described as unbearable, pain is excited by gripping the horse. The area of pain is confined to the upper and inner side of the thigh, close to the origin of the adductors, and firm pressure in this part increases the intensity of the pain. Mr. Hawksley the well-known instrument maker of Oxford-street, tells me that during the last twelve years he has seen as many as seventy-five such cases, and as many as ten during the last winter. The accident generally happens to hunting men, is more frequent in tall men, and affects the right thigh more often than the left. For these mild cases Mr. Hawksley makes a long web or leather strap, from two to three inches broad, sometimes padded to localise the pressure. This strap is passed round the thigh and pelvis, like a spica or figure-of-8 bandage, on the outside of the breeches, and is firmly fastened in front. The action of this strap is immediate, as the man can at once firmly grip his horse. Often the huntsman rides to the meet with the strap put on loosely and tightens it up when the hounds get away. In more severe cases the surgeon is consulted, blood is effused, and, if in a large quantity, passes through the saphenous opening and the other numerous apertures in the fascia lata for vessels and nerves, and is thus extravasated beneath the superficial fascia of the thigh, groin, and scrotum; or, perhaps, the fascia, which is thinner over the adductor muscles than elsewhere, is itself ruptured. From these more severe sprains many men lose a season's hunting, but they are as a rule able to ride again after a period of rest and freedom from horse exercise.

I will give briefly the notes of two very severe cases of rider's sprain which during last autumn came under my notice. In Case 1 the whole of the effused blood was not absorbed, but became in part organised into a firm fibrous mass, almost as hard as bone. For this reason it is specially interesting, as it amplifies the truth of M. Charcot's recent remarks on effusions of blood at the fold of the elbow (*Rev. de Chir.*, Sept. 10th, 1881)—i.e., such effusions are not always completely absorbed; the resulting swelling may be as large as an egg, and of cartilaginous or osseous hardness, though at first independent of the bone they may subsequently become attached to it; they remain stationary for a long time, and are but little affected by treatment; and finally they may give rise to errors of diagnosis, being mistaken for exostoses, or detached and displaced fragments of bone.

I am indebted to my friend, Mr. Court, of Staveley, for the notes of the following case.

CASE 1.—Mr. R. A——, aged thirty-six, a farmer. On the 24th of March, 1881, whilst out hunting, his horse galloped through a bog, fell and rolled upon him, the saddle pressing against his loins. When first seen by Mr. Court there was a large brawny swelling the size of a cheese plate over Scarpa's triangle; the testes were swollen, the scrotum nearly black, and a hard ridge was felt in place of the spermatic cord. No fracture of the pelvis could be detected; he could move both legs freely; and got up from his bed and passed water without admixture of blood. The swelling in the right thigh became very inflamed, and had every appearance of suppurating, but at last it gradually subsided, leaving a hard gristly substance the size of a man's thumb, which was apparently attached deeply to the tissues below the inner end of Poupart's ligament. During the summer of 1881 the substance became harder and more prominent, and projected beneath the skin of the thigh like a piece of stray cartilage, but gave rise to no pain and very little inconvenience. Absorbents were applied to it for some months without any effect, and its condition remained exactly the same

until March the 10th of this year, when Mr. A—— was again thrown from his horse, falling violently upon a hard road. He received a severe scalp wound, and was much shaken. Upon examining the swelling in the thigh, it was found to have become quite flattened, and driven in, as it were, upon the deep structures of the thigh, and for a fortnight Mr. Court thought it would remain so; but gradually it resumed its former shape and size, and in June, 1882, it was as large and prominent as it was twelve months ago. He can ride without any pain or trouble, the only inconvenience being a feeling of weakness in getting his leg into the stirrup.

On Sept. 20th, 1881, when Mr. Court brought this patient to me, there was a mass as hard as bone, and of the size and shape of a man's thumb when the last phalanx is fully flexed, situated at the inner and upper part of the right thigh—i.e., where the thigh joins the pubes and perineum, and over the origin of the long adductor muscle. It could not be made to move, and when seized between the finger and thumb gave me the impression of being connected by its own convex border with the body and ramus of the pubis. I was informed that it had been diagnosed by another surgeon as a portion of the pelvis fractured and displaced from its position beneath Poupart's ligament, downwards and inwards towards the perineum. But the condition of the patient when first seen after the accident, no less than the outlines of the pelvis months afterwards, was completely at variance with this opinion.

CASE 2.—A gentleman, aged forty-three, was sent to me by my friend Dr. Murray of Weymouth-street, on November 22nd, 1881, on account of an injury received whilst riding ten days previously. The horse reared, and the rider suddenly gripping him felt something give way, and then immediately experienced a sensation as of something warm trickling into the flesh near the right groin. Much swelling and discolouration of the skin of the thigh and groin quickly followed, but had in great part disappeared before I was consulted. There still remained, however, some swelling near the junction of the thigh and perineum over the upper end of the long adductor tendon. Tenderness was caused by pressure, and severe pain was felt when the adductors were put into action. I ordered a spica webbing to be worn, which was made by Mr. Hawksley, at my direction, so as to resemble the body portion and one thigh, cut short, of a pair of drawers, padded softly over the origin of the adductors. I also advised the patient to abstain from horse exercise for a few weeks. No other treatment was requisite.

THE RIDER'S SPRAIN.

BY EDWARD HENDERSON, M.D., F.R.C.S. EDIN.

WHEN riding across a small water jump in the country, in the neighbourhood of Shanghai, the muscles on the inner side of my right thigh seemed suddenly to give way, and this sensation was attended by pain of so acute a character that I was for some minutes with difficulty able to retain my seat in the saddle. On dismounting I found myself at once in a position of comparative ease, and soon discovered that, while a good deal of continuous dull aching was felt along the inside of the thigh, really acute pain only attended movements of adduction, such as are necessary to retain the seat securely on horseback. There was considerable tenderness along the course of the long adductor, and acute pain was experienced when pressure was made on the tendinous origin of that muscle, which had clearly been rather severely sprained. I am now (at the end of a week) almost free from pain in walking, but am still quite unable to ride.

This accident, which I have termed "rider's sprain," is, it would seem, of constant occurrence, and well known to horsemen. I have myself seen or heard of many cases of varying degrees of severity. The pain experienced at the moment of its occurrence is generally of a very acute character. One gentleman who sustained this injury when galloping, fainted after dismounting; the inside of his thigh became subsequently much discoloured, and he was for many weeks unable to mount a horse. Another showed such signs of collapse that his companion, a surgeon, supposing he was ruptured, wisely made the necessary examination on the spot. The point of greatest tenderness is apparently in all cases in the upper and inner part of the thigh, directly over the tendon of origin of the adductor longus muscle; but it is not, of course, to be supposed that the sprain is necessarily confined to a single division of the muscular mass concerned in the movement of adduction. A man who has once sustained this injury at all severely is liable to its recurrence, and in a few cases permanent weakness is left behind. In one example which came under my notice the sprain, a tolerably severe one, recurred twice in the same thigh, with an interval of some years. In another, the particulars of which were narrated to me, permanent weakness resulted, the sufferer being compelled to give up horse exercise entirely. We suppose here that the accident may occur more frequently in riding China ponies than with full-sized horses, on account of the difference of grip. A horseman who mounts a China pony for the first time usually experiences a sense of insecurity arising from the comparatively narrow clasp of his legs, and the small size of his mount in front of the saddle. When the rider and his horse have warmed to their work in crossing country, the accident seems less likely to occur, being more commonly met with when a fence or water jump is taken in cold blood, or at the beginning of a run; hence it is that this sprain is so frequently complained of as arising from an apparently trifling cause. Some awkwardness in sitting or some unexpected movement of the horse is at the bottom of most cases. Time and rest will of course cure the greater number of these cases, but, in addition, a broad elastic bandage firmly applied over the upper part of the thigh and secured by a figure-of-8 turn round the waist is, as I have myself found, of very material assistance at first in locomotion. A sporting friend tells me that stirrup leathers are sometimes used to support the injured muscles; they are turned twice round the upper part of the thigh and buckled on the outside; men who have once suffered from such a sprain, carrying their spare leather in the country in this way as a protection against a recurrence of the accident. The stirrup-leather can, of course, be easily slackened or tightened to suit the convenience of the wearer. A broad piece of girth-strap with double buckles would give a better support, and would have the advantage of some degree of elasticity. Doubtless the surgeon's instrument makers at home have been often called on to supply suitable supports in these cases.

I should myself like much to know whether the accident is really as common as I am at present inclined to suppose it, and whether the peculiar seat of the cavalry soldier increases or diminishes his liability to this form of sprain. Sprains of the quadricep extensor muscle are specially referred to in some surgical text-books, but I have not yet come across any special notice of the same injury affecting the triceps adductor.

Shanghai.

MOTOR DIATHESIS OF THE SECONDARY PERCEPTIONS.

BY BRIGADE-SURGEON T. OUGHTON, A.M.D.

SECONDARY perceptions are the subjective indices of the primary qualities existing in external entities—viz., position (distance and direction), dimensions (superficial and solid), magnitude, and motion. Irrefragable evidence has been offered by the eminent Locke, proving these qualities to be primary as affixed in natural objects; but he has failed in a recognition of the fact that, in the sensorial transformation from actualities to phenomena, the not infrequent crosswise action is now in exercise, whereby their mental equivalents can only be regarded as being secondary—that which is primary in the object becomes secondary in the perception. Neither will it be amiss to consider that here is precisely the block of error on which several systems of philosophy have stumbled, noteworthy among them being the identional hypothesis of Berkeley and the intuitional conceptions of Kant. Medical philosophy scouts the Berkeleyan notion that the world is purely mental dynamics, neither does it accept the modification of Kant that the products of special

sensation are *à posteriori*, whilst those of extension and form are *à priori*—i.e., intuitions in a pre-existent mind. Rather is the foundational basis of our philosophy comprised in Locke's dogma, that the brain is a "tabula rasa" at birth, and mind (spirit excluded as appertaining to the province of faith) is a sequence of the interactions of physical and vital forces. Thus we proceed with our duties relying on the realism of externalities; objective experiences may float past the senses and leave even memory out of sight, but none the less have they been realistic episodes in the phenomenal history of time.

Primary perceptions *pari passu* are the subjective indices of the secondary qualities of external entities, such as colour, temperature, &c. These statements may be verified by annexments as follows:—Special perceptions of secondary qualities are primary in point of development, for the organism of special sensation is fully equipped at birth; but a recognition of the geometrical features of objective nature is a slow acquisition, requiring the motor experience of months or years for its perfect expression. Taking a solitary instance of each class of perceptions, every obstetrician must have sympathised at some time with the keen disrelish of the new-born infant for its cool atmospheric bath; and many of us know that a chicken will seize a grain of barley immediately on exit from its shell. In the latter case, however, we cannot argue from the chicken to the infant excepting on the datum that this will grasp a crumb of bread and feed itself. (Of such kind is the absurd generalisation of those affecting horror at the cruelties practised on a decapitated frog, because it purposively removes a drop of vinegar that is stinging its nether extremities.) Locke is evidently at one with us in the gradual acquirement of the perceptions of primary qualities by his admission that sight restored from congenital blindness would be unable to distinguish between a triangle and a square; still, as we observed before, he has failed to identify these perceptions as being of a secondary nature.

Special perceptions are also primary in point of importance, seeing that they may operate independently of the presence of secondary perceptions; the latter, for instance, are absent in the olfactory and auditory senses. None would hesitate to admit that the qualities of direction, distance, size, or form are wanting in odours; but it is otherwise with sounds. Some would grant that size, form, and motion were wanting in the appreciation of sounds, whilst they might be sceptical about the direction and distance of sounds; yet a careful attention must lead to the conviction that sonorous directions and distances are delusional perceptions, that they are judgments based on the comparison of differences in sonorous intensity, and that such judgments are ofttimes erroneous. Regarding the case of direction, if one should attempt to guess the direction along which an approaching carriage is proceeding, whether from right or left, he will find his guesses by no means invariably correct. I have heard the whistle of a distant train at a railway station, and inferred that it was coming along one pair of lines, but the train has presently made its appearance on the opposite pair. So, with sonorous distance, the ear cannot be said to perceive it in the light of a stationary ventriloquist throwing his voice to all conceivable distances, and, we might add, in every possible direction. But, to continue the argument, secondary perceptions are not independent of the primary—that is, directions and distances, sizes and shapes, &c., cannot be perceived in the absence of an objective. When the biceps is contracted into a hard cord the active cohesion of the sarcous elements communicates no sense of weight in the absence of a felt resistance. So, similarly, on rolling the eyeballs in darkness no visible notion of direction or motion is experienced, excepting as attached to the dim spectra of retinal irritation; and, in the sense of touch unaided by sight, the position of the limbs is determined by a certain indefinite increment of temperature (the true primary sense of feeling) being present, or if not by a memorial comparison. A clearer test on this point is furnished by the faculty of articulation; no evidence of direction, &c., is elicited by the voluntary contractions of the tongue, because the air in contact therewith is impalpable and of an even temperature. Hence, that which is essential is primary, and that which is an adjunct is secondary.

The preamble has been a lengthened one, but not more so than the complication of the subject has demanded; it has been necessary to define and justify the titular phraseology "secondary perceptions," by indicating that primary objective qualities are the equivalents of secondary subjective qualities, and to note the error that has crept into mental philosophy by Locke's almost culpable disregard of the fact. Neither should it be overlooked, as regards the latter point, that perceptions are only to be construed as being primary and secondary in their mutual relationship as physiological functions, and that both varieties of perception are secondary in their relation to objective qualities. Herein, then, consists the basis of a sound realistic philosophy, and I desire to show—(1) that the organism (muscular) of the secondary perceptions is correlated to the mechanical forces of nature in like manner as that of the primary perceptions is correlated to the sense-essences of nature; (2) that sensorial streams of the primary qualities are transmitted centripetally through the channel of motor nerves in like manner as those of the secondary qualities are transmitted centripetally through sensory nerves. This being done the *modus operandi* of the process must remain for future research, both experimental and logical; query—(1) in what degree is the formative force of natural cohesion correlated to the vitalised cohesion of voluntary muscular contraction; and (2), admitting the correlation, is such vitalised cohesion idealised into the secondary perceptions, by means whereof sensorial form is conformed to natural form?

It must be impressively maintained, firstly, that perceptions are divisible into the two distinct classes of primary and secondary; there is the same *raison d'être* for the classification as for that of the qualities of bodies. The secondary perceptions have been very strangely slurred over by physiologists. Where do we read that the deltoid and superior rectus originate upward ideas, or the biceps cubiti and internal recti ideas of proximity? How does it happen that the said perceptions are apt to be treated metaphysically instead of physiologically, except it be on the unwholesome lead of Locke which insinuates indirectly that they are of a primary nature and therefore, perforce, mentally intuitive. But, concerning classification, note the following words of this philosopher: "There is no discoverable connexion between any secondary quality and those primary qualities that it depends on." He continues—and observe how he mixes up qualities and perceptions—"We are so far from knowing what figure, size, or motion produces, for instance, a yellow colour, or sweet taste, or a sharp sound, that we can by no means conceive how any size, figure, or motion can possibly produce in us the idea of any colour, taste, or sound whatsoever; and there is no conceivable connexion between the one and the other." One inference only is justifiable from this premise—namely, with two sets of perceptions must be adequately conjoined a duplicate nervous instrumentation; the retina can no more perceive direction or visual form than light can *per se* be shaped or assume a specific direction, and *eodem modo* the muscular contraction of volition can in no wise be productive of a sensation any more than a given shape, size, or motion, can *per se* originate light, temperature, or the elasticity of sound. We recognise the fact that special nerves are the channels of primary perceptions; where else, then, shall be discovered the second distinctive and instrumental innervation of perception saving in the motor nerves?

A very good rough method of inculcating that the secondary perceptions constitute a class by themselves and are generically akin, that one form of nervous instrumentation suffices for their excitation, and that such instrumentation is motor in its nature, is comprised in the consideration that "each and every" phase of this class of perceptions is expressible by means of straight lines. (*a*) Drawing a straight line points directly to a motor causation for the perceptions of motion, of direction (that of the line), and of distance (the length of the line). (*b*) Describing any configuration, as a hexagon, reveals the instrumentation of the perception of shape, and the varying extension that may be bounded by any such configuration furnishes a clue to the agency of apparent size. (*c*) An angle indicates the profile of a relief, and the relief becomes real on rotation of the containing superficies about a vertical line. Euclid's point is not a metaphysical conception, but the residuum of an antecedent muscular precept; the point has position, being significant of an appreciated direction and distance. Neither is there aught of intuition in any problem or theorem of geometry; these are naught but the refined adjustments of precedent muscular experiences.

Thirdly, the gradual acquisition and development of these perceptions impress the conviction of their motor origin, which is sufficiently patent in the analogous

acquirements of articulation and ambulatory progression. All observation confirms their gradual acquisition, from Cheselden's youth restored to sight to Charles Bell's note that an infant cannot realise the pain of an abdominal blister. The powers of primary perception are intuitive; but a muscular education is necessary for the identification of the roundness of the solar disc, the magnified resultance of vision, the length of the arm, or the difference between a picture and a solid reality. Coupling in this behalf the facts that shapes are acquired perceptions, and also the chief originating elements of the signs of intellectualism, we may conclude that the radical principle underlying a soundly educated mind resides in a due admixture of sports and study. In a hygiene of intellect the art of drawing (mainly perspective) should be recommended, and instruction of the schoolboy in modelling and sculpture, if practicable, would develop the more realistic perception of relief; but pre-eminently let alternate exercise for mind and body be strictly enjoined, and on an unwavering principle that man's intelligence is in the main founded on his muscular organism in its conjunction with a suitable mechanical configuration.

It is essential, again, that the distal terminations of the nerves of special sense should be mobilised by muscular contraction for the production of secondary perceptions. The vestibular sac is immobile between the cochlea and the semicircular canals, and no muscle plays directly on the Schneiderian membrane; hence, the absence of this class of perceptions in the auditory and olfactory senses. It may be suggested here that the auricles of some animals are volitionally mobile; truly, but no pure sonorous perception of direction is generated thereby, and the result is an inferential perception such as we gain concerning the direction of an odour by turning the head towards its source. The mobility of the tongue is associated rather with articulate speech than with objective impulses; nevertheless, very keen directive and distantial perceptions reside in this organ. It is in the senses of sight and feeling that each and every secondary perception is manifest in full exercise; further, the similitude existing between visible and tangible signs is to be referred to the volitional instrumentation that is common to these senses. Bishop Berkeley differs from this position, for he says—"Visible ideas are the signs of the tangible, not by means of any similitude between the one and the other, nor by any natural principle; but having found them constantly conjoined, as the sounds of a language are with the things they signify." His statement is unreliable, for the said ideas are not immutably conjoined, as is language with thought; the tangible sign is a fixed one, whilst the visible sign varies with the position of the visible body, and the discrepancy is adjusted by a mutual tutoring of tactile and ocular motor experiences.

A few anatomical dispositions may be noted, lastly, which illustrate the dependency of these perceptions on a muscular mechanism—1. No voluntary muscle crosses the median line of the body. This disposition may be interpreted as pointing to the necessity for a neutral line of departure being available wherefrom dextral and sinistral perceptions may date their site of origin. 2. Corresponding articulations are paired on the same level; otherwise double touch would be a constant concomitant of the sense of feeling. Thus, unequal segmentation of the arms would cause a tangible object to be perceived at non-corresponding distances or heights. So, analogously, the orbits are deposited on a horizontal level to prevent a quadruplicate displacement of visual spectra; with the eyes mounted on separate level-lines there must co-exist a vertical, in addition to a horizontal displacement, and with what result? It is difficult to conceive of quadruple vision in the absence of four eyes, and the spectra of double vision would probably, in the case alluded to, hold a variedly oblique relation to each other, instead of a constantly horizontal relation, as with normal binocular vision. 3. The ocular recti stretched away from the eyeball forms a perfect Roman cross, clearly in subjection to the exigencies of vertical and horizontal qualities. 4. Muscles passing over two or more articulations effect the selfsame directive perception in the segments concerned in their contraction; the extensor digitorum longus, for example, produces an upward idea whether in extending the toes or flexing the ankles.

Isolated contradictory evidence is of little moment in the enunciation of general truths. Such evidence crops up only too frequently in the study of perceptive experiences, nor would these be the puzzles they are admitted to be without them. It may be urged that certain muscles have multiple and incongruous uses, which are inconsistent with their being the agents of directive perceptions; thus, the fan-shaped pectoralis major does not present the simplicity, as a directive agent, of the straight ribbon-like ocular muscles. But the sound principle of the present argument, additionally corroborative of my stated views concerning erect and single vision, is not to be overthrown by a trifling obstacle of this nature; perception has reference to general results rather than to special muscular adjustments, and one of these results indicates that directive phenomena are affected by muscles influencing one another as well as by the mechanical arrangement of their constituent fibres. Herein I have attempted to show that the perceptions of space are secondary to those of essence, and also secondary to and determined by the elements of objective space operating on a sympathetic motorial machinery. It is confessedly difficult to comprehend the crass blindness of metaphysical philosophy in the light of the foregoing matter of physical and physiological fact.

Forest-hill.

A NEW HÆMOSTATIC AND SURGICAL DRESSING.

By EDWARD THOMPSON, M.B.,
SURGEON TO THE TYRONE COUNTY INFIRMARY.

SOME months since, at one of the quarterly meetings of the north of Ireland branch of the British Medical Association, I directed attention to the use of the puffball as a hæmostatic and surgical dressing. My attention was first directed to this substance by the Rev. Dr. Discon, the respected rector of the parish of Beragh, who told me that by its means the life of a poor woman, who had suffered for a long period from an open cancer of the right breast, had been preserved for years, and her sufferings much mitigated. I visited this patient, and ascertained that she had tried almost every form of surgical dressing without being in the least relieved either of her sufferings or the constant hæmorrhages which weakened her. In despair she sought the aid of a country quack, who suggested the use of the puffball, or, speaking technically, the lycoperdon gigantium, which grows close to the roots of trees in some of our woods, and which, I believe, has gained a solid reputation amongst the country folk. From the day the patient commenced the use of this substance her sufferings were greatly mitigated, and she improved in health and strength. The frequent bleedings ceased, and the foul odour from the sore was greatly diminished; indeed, so admirably did the puffball act, that the poor woman lived in comparative comfort for seventeen years after the first appearance of the cancerous ulceration. But not only does the lycoperdon gigantium possess those important styptic properties which would be in themselves more than sufficient to commend its use to surgeons, but it is also a most soft and comfortable surgical dressing, and the powder it contains seems to possess antiseptic and anodyne properties. The puffball is, when mature and fit for use, almost as large as a man's head; it is enclosed in a thin capsule which must be removed, it can then be torn in pieces and used either as a styptic or for applying any required surgical dressing. The puffball undoubtedly possesses the qualities here claimed for it, and this I assert positively (although we live in an age of scepticism), both from my own experience and that of others. It is, however, its hæmostatic properties that seem to me to be so especially valuable; it has the power of stopping instantly even the most violent external hæmorrhages upon which iron, matico, turpentine, &c., have exercised their properties in vain.

Mr. Fagan, the leading surgeon in Belfast, told me a very short time ago that when removing a large tumour from the neighbourhood of the orbit, he encountered the most violent hæmorrhage from large arteries in the bone, which of course he could not tie, and which even pegging with pieces of wool failed to control, yet a small piece of the puffball at once restrained all bleeding. Dr. McKeown has also used this substance, and although he denies that the puffball has any antiseptic or anodyne properties, he fully concurs in the opinion a number of north of Ireland surgeons have formed as to its complete success as a hæmostatic. I have thus briefly directed attention to this most useful substance, in the hope that some of our leading surgeons will use the puffball, and ascertain for themselves its great utility.

NOTE ON THE

USE OF SALICYLIC SILK AS A DRESSING FOR WOUNDS, WITH CASES.

BY J. LOCKHART GIBSON, M.B., C.M.,
RESIDENT PHYSICIAN, EDINBURGH ROYAL INFIRMARY; PRESIDENT OF THE ROYAL MEDICAL SOCIETY, EDINBURGH.

LAST winter I acted as Mr. Chiene's house-surgeon in the Edinburgh Royal Infirmary, and I have received his permission to publish the results we obtained under the use of salicylic silk between the deep and superficial layers of gauze in an antiseptic dressing. What led to the use of salicylic silk was the note of the results obtained in the Leeds Infirmary, published by Mr. Henry Brown in your number of Oct. 8th, 1881. Mr. Chiene did not, however, adopt the Leeds method in its entirety, but, as we think, improved upon it, and so brought out some of the chief advantages of the silk as an addition to an antiseptic gauze dressing.

Our method differed from that used at Leeds in this essential—viz., in the use of no mackintosh. Next the wound was placed a piece of protective of as small a size as possible, and often perforated, as it was used merely to prevent the dressing from sticking to the wound; then two or three layers of carbolic gauze wrung out of 1 to 40 carbolic lotion; above that a variable quantity of salicylic silk; and over all a large dressing of eight plies of carbolic gauze. The large dressing we used to protect the silk, which was looked upon as an aseptic though not antiseptic reservoir, and therefore required an antiseptic covering to prevent it from going wrong when moistened with discharge. It was not thought necessary to soak the deep dressing in a stronger solution of carbolic acid than the usual 1 to 40. The mackintosh was dispensed with because the use of the beautifully absorbent silk gave us the means of employing what Mr. Chiene had been long aiming at—viz., a dry dressing. The advantages found in the silk were—dryness of our wounds, lessening of discharge, diminution of labour to the surgeon, and cheapness. The absence of the mackintosh allowed the fluid part of the discharge to evaporate, and the dressings, when removed, sometimes not till two or three weeks after their first application, were found to be acting the part of a huge scab and to be covering a healed wound. The discharge was lessened because the poulticing action due to the mackintosh was absent. Our wounds in almost every case were drained with chromic catgut, that dressing might not be necessitated for the removal of a drainage-tube. Horsehair stitches were employed, as being more rigid than catgut; as keeping the lips of a wound in more perfect coaptation, and as being easily removed after a wound is healed.

CASES TREATED BY SALICYLIC SILK IN THE ANTISEPTIC DRESSING.

No.	Nature of case.	No. of dressings.	Highest temperature.	Remarks.
1	Scirrhus of mamma and axillary glands.	1	99·2°	Dressed on the operating-table. Dressing removed on the fifteenth day. Wound found healed.
2	Scirrhus of mamma and axillary glands.	4	100·8°	Only once dressed for discharge (oozing); twice for drainage-tube in axilla, which had been used because some glands surrounding the axillary vessels, and, therefore, not removed, had been touched with chloride of zinc. Drainage-tube opening healed in thirty days, rest of wound in thirteen days.
3	Trephining for compound depressed (punctured) fracture of skull.	1	99° after 1st day, when it was 101·6°	Bone, to the size of a crown-piece, removed from vertex. Dressing removed on the fifteenth day. Wound found healed. Dismissed a month after admission.
4	Railway injury reflecting the scalp from nearly the whole of one side of the head, and baring and scratching the bone for an area of two inches in diameter.	1	99°	Dressed on the eleventh day, and found healed.
5	Amputation through the middle of thigh, for caries-necrosis.	4	99°	Healed on the seventeenth day. Dressed on the first, fourth, tenth, and seventeenth days.
6	Five wounds of vertex, three penetrating to the bone, and one exposing a fissured fracture.	1	99°	Dressed on the twelfth day, and found healed.
7	Primary amputation below the shoulder.	5	99·8°	Drainage-tube used because flaps were doubtful. Only two of the dressings were necessitated by discharge.
8	Syme's amputation at the ankle (primary).	10 (3 for discharge)	100°	The frequent dressings were necessary for the watching of a linear slough of the heel-flap, which had been injured by the accident. The case was in for eight weeks. Very good stump.
9	Compound fracture of tibia and fracture of fibula.	2	99°	Dressing removed in twenty-one days. Wound found to be quite superficial, with distinct union of bones. In another fortnight the wound healed, and patient was dismissed.
10	Compound fracture of tibia.	3	100°	The patient (a woman) had fracture of the true pelvis and of a rib, in addition to the tibial injury. Dismissed in six weeks.
11	Compound fracture of tibia and fibula, and compound dislocation of the ankle.	12	101°	The case was a very serious one, but left the hospital in nine weeks with the wound healed and a movable ankle. The last five dressings were not necessitated by discharge.
12	Primary amputation of middle and index fingers, with portions of their metacarpal bones.	3	99°	Healed on the twelfth day.

ON A CASE OF MALIGNANT CHOLERA.

BY J. EDWIN COONEY, L.F.P.S.G., &c.

MRS. C——, of Poplar, E., aged fifty-two, of spare habit, after three days of premonitory diarrhœa, during which period she dosed herself from a neighbouring druggist's to no effect, sent for me on June 21st, 1882. Arriving at 8 A.M. I found her shrieking and groaning, tortured by spasms of the carpo-pedal extremities, &c., which were purple; the countenance had assumed the "facies choleritica," the eye being deeply sunken, red and injected, a broad and livid band encircling the lower part of the orbit; every feature was sharp and pinched, the complexion thick and muddy, and the lips and tongue purple. The whole body was bathed in a cold and clammy sweat; the voice scarcely audible. Temperature (external) was below 95° F.; pulse not appreciable in wrists and superficial arteries. One of the heart's sounds only detected. Vomiting and purging incessant. She was passing painless motions of the true choleraic character—viz., copious white flocculi suspended in a watery fluid; urine was entirely suppressed since 4 A.M. She was, moreover, extremely restless and tossing about. In other words, she was in the algide state of malignant cholera. At 8 A.M. ice was given *ad lib.* to suck, also twenty grains of chloral hydrate, with twenty minims of dilute sulphuric acid in a little ice-water, which was rejected. This repeated at 8.30 A.M. was again vomited. At 9 A.M. I gave her a dose of chloral alone (twenty grains), which was retained; and up to 6 P.M. I gave ten grains of chloral every half-hour. Vomiting occurred occasionally in the intervals, but the drug was never rejected. At 10 A.M. I found the bladder empty on passing a catheter, and resolved to inject a pint of tepid water in it to procure its absorption. The symptoms were still urgent, though the sweating and restlessness had ceased, and the cramps were shorter in duration and further between. At noon, on passing the

catheter to carry out my resolution, I found a fluid ounce of urine in the bladder after eight hours' suppression. By 3 P.M. the thermometer marked 96° F., and at 6 P.M., after taking 180 grains of chloral in nine hours, I noted the external temperature at 96·2° F.; the pulse was coming back, and the muscular spasms had disappeared, and she had vomited five times; her motions were of the same character as before, but less frequent, and shortly before 6 P.M. she expelled a little urine with an alvine evacuation. From 6 P.M. to 6 A.M. the following morning she had five grains of chloral every half-hour, with the exception of two hours' interval during the middle of the night, when the symptoms were observed to become more urgent and the temperature fell below 95° F. She had a teaspoonful of beef-tea, iced, every half-hour. Chloral, 100 grains.

June 22nd, 1882, 6 A.M.: Temperature 96·4°; eight stools during night, when urine was passed; during the day five grains of chloral every half hour=120 grains of chloral. 6 P.M.: Temperature 97°; pulse 120; vomited twice; ten stools; both heart sounds heard; face and extremities still cyanosed; five grains of chloral every hour through the night=sixty grains of chloral.—23rd: Temperature 97°; pulse 110; respiration laboured, and 35 a minute; thick purulent sputum brought up frequently (patient states "she usually suffers from chronic bronchitis, and that there is consumption in the family"); coughs for the first time since illness; she is very drowsy, and complains of pains in the head; bowels opened eight times through the night, and stained with bile; five grains of chloral hourly, with dilute sulphuric acid=sixty grains of chloral. 6 P.M.: Temperature 97·8°; pulse 100; respiration 24; sputum less; two grains and a half of chloral hourly, with acid=thirty grains of chloral.—24th, 6 A.M.: Temperature 97·8°; pulse 96; cyanosed appearance almost gone; bowels moved six times through the night, and of a better consistence. The patient is still very drowsy, and has to be roused for nourishment; milk and beef-tea ordered. 6 P.M.: Four stools; temperature 98°; still drowsy; ordered cold to head, and one drachm of brandy every two hours, with nourishment as before; no chloral given this day.—25th, 6 A.M.: Temperature 97·8°; purged three times; not so drowsy; no stimulants or medicine. 26th: Temperature normal; no relapse or reactionary fever.

Remarks.—This case has many points of interest to one who has seen much of cholera, but through want of space I will simply allude to a few. There are only six cases on record in this country with a premonitory diarrhœa of three days' duration, and this is another. Besides, it is the only case in which suppression of urine lasted only eight hours, the other shortest period being ten hours. Hydrate of chloral was given to an alarming extent—i.e., 180 grains in the first nine hours, and a total of 550 grains or one ounce and a quarter in three days. Though the freshest drug by Liebreich was used, all the usual effects of large doses were not observed, and it is questionable whether the subsequent drowsiness was due to chloral or a natural sequence of the disease. Further corroborative evidence is necessary to prove whether chloral, besides checking sweating (as in phthisis) and preventing vomiting (as in sea-sickness), has any action on the kidney secretion, similar to nitrite of amyl. Probably such toleration of larger doses of chloral is due to the loss of the inorganic blood salts by transudation of blood serum *viâ* intestinal canal. The early cessation of the vomiting precluded the employment of chloral hypodermically. The administration of the drug was thorough, and the case assiduously watched throughout conjointly by Mr. G. Edwardes, a Calcutta colleague, and myself. Other medical men also saw the case. It would be interesting to know what quantity of chloral given hypodermically is equal to a given quantity given by mouth. The early appearance of the urinary secretion prevented my putting into practice my plan of injecting the urinary bladder with water, which originated with me, and is not generally known, and which I communicated to THE LANCET with cases some time ago. As the patient and her friends objected to my making internal thermometric observations (per vagina or rectum) I am unable to produce them.

London.

THE Royal Commission on Metropolitan Sewage Discharge met on Tuesday, at 20, Great George-street. Present—Lord Bramwell, in the chair; Sir John Coode, Prof. A. W. Williamson, Dr. De Chaumont, Dr. Thomas Stevenson, Mr. James Abernethy, and Dr. W. Pole (secretary).

NERVE-STRETCHING FOR SUPRA-ORBITAL NEURALGIA,

WITH REMARKS ON NERVE-STRETCHINGS AND THEIR BEARING ON THE MODE OF TRANSMISSION OF NERVE IMPULSES.

BY AUGUSTUS H. BAMPTON, M.D., M.CH.,
ASSISTANT-PHYSICIAN TO THE PLYMOUTH PUBLIC DISPENSARY, ETC.]

ELISHA S——, aged sixty-nine, a farm labourer, was admitted to the South Devon and East Cornwall Hospital at Plymouth on March 7th, 1880, suffering from what has been termed epileptiform neuralgia affecting the frontal branches of the first division of the fifth. He had had these attacks of pain off and on for about eighteen months, and the severity had increased so that for the last three weeks he had taken to his bed.

His family history was good, being the father of ten children, nine of whom were still living. There was no nervous or rheumatic history, and nothing remarkable about his general condition, except that he complained of pain across his chest and shortness of breath, accounted for by dyspepsia and the age of the tissues. The pain was confined to the right side, and was most intense over the orbit. The right pupil was widely dilated with profuse lacrymation. The skin was hyperæsthetic, so that a touch would bring on a spasm of pain, and a shade had to be worn over the eye to prevent the impression of light inducing a spasm; the pain was excruciating, rendering life a burden. He was ordered a pill of quinine and iron and a belladonna liniment, subsequently altered to aconite liniment and phosphorus pill, and the application of the continued current over the painful spot. Under this treatment he improved somewhat, the phosphorus being increased to one-fifth of a grain daily, and he relapsed when the battery had to be sent away for repair. At this time he had about forty paroxysms of pain a day. To relieve this nitrite of amyl inhalation was given with some benefit, temporary only; so that on June 23rd, at Dr. Clay's request, under whose care he was, Mr. W. Square cut down on the supra-orbital branch of the frontal nerve, and stretched it with a blunt hook, just behind its entrance to the supra-orbital notch, without much difficulty, with the immediate result of cessation of pain. The wound healed by first intention, leaving no perceptible scar, and up to July 19th, the date of his discharge, he had only a slight pricking pain at the outer angle of the eye. In the way of drugs he had lately been taking the saccharated carbonate of iron and cod-liver oil; so that here we had almost complete relief from pain following a most simple operation, after a patient trial of many remedies, in so painful a disorder that Trousseau declared he had not seen in his experience ever radically cured by any means.

For neuralgias of an epileptiform character nerve-section was the last resource up to 1869, when Nussbaum accidentally discovered the efficacy of nerve-stretching, a procedure which has been carried out some fifty or sixty times in the last few years, in the majority of cases with permanent benefit. In tetanus nerve-stretching has been employed, but I am not aware with any constant measure of success. Although in locomotor ataxy the relief by nerve-stretching as regards pain and improvement in other symptoms has been well ascertained, and was admitted on all sides at the discussion on the subject at the International Medical Congress, and Professor Morgan, of Manchester, mentioned a case of idiopathic lateral sclerosis, where stretching of the left sciatic gave considerable relief as regards pain in both limbs, and temporary disappearance of ankle clonus on the side operated on. The difficulty is to find a satisfactory explanation for the effects of the operation. How is it brought about in such cases? It is generally considered a sufficient answer in regard to neuralgias of inflammatory origin, where adhesions have taken place, that it is the breaking down of such adhesions that effects the cure; but what is the mode of action where other conditions obtain? Professor Eulenberg believed that it consisted in a deficiency of centripetal conduction being brought about. If so, it would be useful only in those nerve lesions of a local character where lesions in nerve centres were of a secondary character. The mode of transmission of nerve impulses is involved in the solution of the ques-

tion; it is not yet recognised whether it is vibratory or chemical. By the vibratory hypothesis is understood a displacement or vibration of the nerve molecules, just as atmospheric atoms undergo displacement or oscillations in the transmission of sound; and it has been suggested that sensorial impressions, transmitted to the nervous centres, may be taken and reproduced by those organs in the same manner that the diaphragm of the telephone receives and reproduces the respective motions impressed upon it. By the chemical hypothesis is understood an absolute chemical change in the particles of the nerve-substance when in a state of activity, by virtue of which change nervous impulses are propagated, just as chemical mutations occur in other animal organs during their physical activity. Professor Charles alluded to a third hypothesis, in a paper read at the Cork meeting, which Dr. Meryon called the electrical hypothesis, whom I quote, by which is understood the development of electrical action in every nerve particle by virtue of a dipolar attribute, by which every nervous molecule adds its quota to the evolution of a force closely allied to, if not identical with, electricity; although having regard to the correlation of forces, the possible transmutation of either one of these forces into another must be borne in mind. The efficacy of nerve-stretching seems to me to point rather to the truth of the vibratory hypothesis, and if we believe that pain is the result of an inordinate and disorderly set of vibrations, and that nerve-stretching, like the percussion of Dr. Mortimer Granville, sets up a new set of vibrations, which interrupt or change the morbid set by introducing discord,—this would explain the action of the electric current in arresting pain by altering the number of vibrations; for a galvanometer shows a decrease of deflection if the current be made to pass through a nerve in an opposite direction to that of the natural nerve force, this latter being just so much neutralised by the inverse galvanic current, as if their molecular motion were interchangeable. But, if this be true, we still have this difficulty of which to give an account—viz., Why should the change be permanent for good? Callender thought that the stretching is of use by numbing the nerve for a short time through breaking the transit of the abnormal impressions conveyed along the fibres of the nerve, so that in the interval thus gained the centres may have resumed their natural control. But if that were so, nerve-section would have the same effect; but it is not so. Walsham quotes Vogt in his belief that we must look for the cause of the relief obtained by nerve-stretching in some alteration in the irritability and nutrition of the nerve trunk or of its peripheral terminations, brought about by the stretching of the bloodvessels of the sheath; and that it is not due to any primary effect on the nerve centre or in the conducting power of the nerve, because the traction is not conveyed to the central organ. But though direct mechanical traction may not be transmitted to the central organ, Professor Eulenberg believes, on the other hand, it to be essentially due to centripetal impulses of a dynamic agency, of a nature as yet unknown, of a peripheral traumatic influence on the corresponding smaller or larger territories of circulation and nutrition in the central organ; and we know it must have an effect on the central organ, because it often not only has a favourable influence on the leg operated on in tabes dorsalis, but also on the other. Dr. Müller gives an instance in a case where when the left crural nerve was stretched the sole reflex disappeared; yet at the same time there appeared in the other leg, which was not stretched, hyperæsthesia and hyperalgesia, a clear sign that in man the effects are the same as Brown-Séquard noted them to be in animals; and Dr. Anstie believed all neuralgias to have a central origin, not traumatic. Thus it would appear that nerve-stretching is likely to be of service in neuralgias whether of central or peripheral origin. Uspensky believed neuralgia to be dependent on the retention of acid products of metamorphosis of the nerve tissues, with subsequent weakened function of the vaso-motor nerves, atrophy of sensory nerve cells, and change in the calibre of the vessels, with loss of their tone. It seems that, as there are neuralgias dependent upon diverse causes, some associated with recognised structural changes, others only of a functional character, the action of nerve-stretching may work differently in such cases, in some cases by removing or breaking down a fibrous adhesion, as in neuralgias and epilepsies of traumatic origin, and in some cases of tetanus brought about by peripheral irritation; in some cases by simply interrupting a vicious habit of irregular molecular nerve impulses. That such effect is possible is shown by the phenomenon of negative variation taking the place of the ordinary nerve current on the application of an electrical or mechanical stimulus; in others, due to imperfection of the local blood-supply, or a vice of development on the part of the tissue elements, by altering the blood-supply through the calibre of the vessels, thus inducing nutritive changes in the nerve cells and increasing their molecular stability. Nerve-stretching may act in all these ways in one case. This is, I believe, only the second time that the supra-orbital nerve has been stretched, and was no exception to the rule that after stretching a single branch pain occurs during convalescence in a different branch of the same nerve, and is another instance that when neuralgia attacks the ophthalmic division of the fifth it usually affects the supra-orbital branch.

I learn that the patient continued free from pain for nearly three months from the time of the operation, and it returned at intervals during the following winter. I take it, in this case, the mischief was centric. It may turn out that it is only those cases where the nerve storms are set up by peripheral irritation that derive permanent benefit and complete cure is effected by stretching; and that where the origin is centric, the bad habit is only interrupted for a time in most cases. But considering the simplicity of the operation, it should always be resorted to when other treatment fails in this most painful affection.

A NEW INDICATING AXIS-TRACTION FORCEPS.

BY A. DRUMMOND MACDONALD, M.B., C.M. EDIN.

THE leading points in the design of this instrument are—(1) axis-traction without the use of intra-vaginal rods; (2) indication of the grasp taken of the fœtal head; (3) portability; and (4) minor deviations from the ordinary type of long forceps, partly suited to the three preceding points, partly by way of improvements. How this design is practically carried out is shown in the accompanying woodcut and following description.

Taking the parts *seriatim*: (*a*) The blades are 6¾ in. long, 2¾ in. apart at the widest, and 1 in. apart at their extremities, which are not quite so broad as usual. When applied, and traction made, they will "give" half an inch, a point to be observed in all forceps, according to the temper of the steel, and having an important bearing on the question of grasp. The total breadth is 1⅝ in., the fenestrum being ¾ in., leaving 1/16 in. steel, which ensures a good hold. The fenestrated portion has been made nearly straight, and the pelvic curve lies in the lower portion of the blade and upper part of the shank, for the reason that when the blades are in apposition to the head, at or entering the pelvic brim, the natural curve of the genital canal lies below the head, consequently below the blades, and so corresponds to the curve above indicated. What we want is a pair of forceps acting as straight forceps, but without their perineal inconvenience, capable of being applied with facility, and at the same time adapted to the curve of the pelvic passages. (*b*) The shank measures 2¾ in. (with the blade 9½ in.). This should prevent any locking in the vagina. (*c*) The lock is a kind of hybrid between the British and Continental locks, and allows of a scissors-action of the blades for the purpose of indication mentioned below. The lower blade has, and is easily recognised by, a hooked portion of the lock, on which the upper rounded and shielded segment is slipped in locking. (*d*) The handles have upper movable halves attached to the lower by a hinge joint which admits of their being folded down from right angles, so as to be easier of manipulation when required, and occupy smaller space when not in use. There are holes for a transverse traction bar through their ends, between which is a space for

the middle finger to be passed through when grasping this bar. (*e*) The indicator is seen as a scale on the flat convex side of the binding-screw (C), passing through the centre of the hinge, and shows how far the extremities of the blades, when in position, are apart, within a range of one to three inches. This will indicate whether a sufficient grasp has been obtained to avoid risk of slipping; and if the exact presentation and movement be taken into account, will give an idea of the measurement of the diameter of the head we are dealing with. For portability's sake the traction-bar may be screwed into the head of the binding screw. (*f*) Mode of application: The handle is not to be brought so far back towards the perineum as must be done with long forceps generally. Then having inserted the screw and read off its index number, raised the movable part of the handles, and placed in position the transverse bar, traction is to be commenced (assuming that the head is at the brim) with the bar opposite the tip of the coccyx, so that the line of traction (A B) shall pass through the axis of the brim. The hand is of course to be moved forwards as the head descends. The forceps are dark bronzed, to take away the formidable aspect that bright polished or plated instruments wear in the eyes of outsiders. Messrs. S. Maw, Son, and Thompson have given me a ready assistance in carrying out my endeavour to produce an "instrument of precision."

Dingle-hill, Liverpool.

IDIOPATHIC OR PERNICIOUS ANÆMIA, ASSOCIATED WITH JAUNDICE.

BY W. T. PARKER DOUGLAS, B.A., M.B. CANTAB.

THE following is a typical case, so far as its clinical history is concerned; and its connexion with jaundice may probably be accounted for by an excess in the fatty degeneration of the liver (which frequently forms an element in the pathology of cases of pernicious anæmia), due to the habits of the patient.

G. R. H——, aged seventy. Had been a strong, active, muscular man, of full habit and florid complexion, fond of sport and of good living. He inherited gout, and perhaps helped to incur the same, which first made its appearance at the age of thirty; of late years he had constantly arrested its development by patent medicines containing colchicum. Two years ago he was laid up with phlebitis of the left femoral vein, and since then his strength and health had been failing, though at Christmas last he was able to walk two or three miles. He persevered with his duties as a clergyman till June 5th (the last occasion of his officiating in the church). With increasing weakness slight jaundice supervened, and persisted to the last. Of late there had been not infrequent blood loss from hæmorrhoids and by epistaxis. Such is a short history of the case prior to his coming under my observation on September 3rd, in consultation with Dr. Phillips, of Hurstbourne, when his appearance was as follows: Well built, fairly nourished, no lack of fat, slightly jaundiced, and of a deepish lemon-colour over head, face, and neck, but much paler over rest of body; skin dry and waxy, with a few small ecchymoses on extremities, and light-brown pigmentations, the seats of former petechiæ; lips and mucous membranes pale; slight anasarca over whole body; eyes with wildish, anxious expression; arcus senilis highly developed; tongue furred and dry; breath rather offensive; pulse 96, soft, and very compressible; heart-sounds faint, with systolic (hæmal) bruit at base; some of the veins in both upper and lower extremities easily traceable for some distance, and hard as whipcord. No enlargement of liver, spleen, or any of the glands; breath-sounds faint, but normal; urine tinged with bile, but free from albumen; bowels generally costive, and motions of an ochry colour. Sickness supervened on taking nourishment; and besides the liquids swallowed, the vomit was mixed with darkish, grumous mucus. Temperature just below normal.

Between Sept. 3rd and 6th there was constant sickness, slight epistaxis, and lastly hæmatemesis, to the extent of a pint and a half, followed by extreme exhaustion and death.

A specimen of the blood was taken from the finger on September 4th, secured in a capillary tube, and examined by microscope six hours afterwards, when I noticed as follows:—No tendency on the part of the red corpuscles to collect into rouleaux; about two-thirds were normal in outline and size, the rest most irregular in shape, some being of equal dimensions, with healthy red corpuscles but granular, others larger, indefinite in outline, elongated, or forming masses having the appearance of red corpuscular detritus, many of which were twice or three times the size of normal white corpuscles: these latter elements were not increased in numbers beyond the natural proportion, but varied in size, some being barely a third of the dimensions of the larger normal white corpuscles, thus corresponding nearly with observations made by Messrs. Mackern and Davy on the blood in a case of idiopathic anæmia published in THE LANCET for May, 1877.

Newbury.

AN INTERESTING CASE OF BRANDY POISONING.

BY J. A. OWLES, M.D. ST. AND.

ON Tuesday, May 16th, I was summoned to see a gentleman in a "fit," and found him lying on the floor of his bedroom in a deep sleep, with evidence of having recently vomited, and with a slight bruise on the right temple and another on the right thumb, which confirmed the supposition of a fall. His breathing was laboured, but not exactly stertorous; his heart's action was very weak and his pulse variable; the pupils were unequal, the left being a good deal contracted. It was difficult to rouse him, and impossible to get any information from him. A lady and gentleman (relatives) and the proprietor of the house in which he was lodging were present, but could throw little light on the history of the case. They said that he had come to Bournemouth for change after a very severe attack of inflammation of the right lung, that he was a little over thirty years of age, that he had been walking about "too much," and that he had been complaining of neuralgia. A friend had given him, a few hours previously, a glass of port wine, and he had also taken a "little" brandy. He had been sleeping a good deal upon the bed during the morning, but was not heard to fall, and no one knew what had happened until he was found upon the floor. Three bottles were upon the mantelpiece: one containing a tonic mixture with steel in it; a second, some creosote for local application; and a third was an ordinary brandy bottle half full. There was no reason to suspect poisoning, either wilful or accidental. The only odour perceptible in the breath was that of brandy, and it seemed unlikely that this was the cause of his illness, as he was an habitual abstainer from alcoholic drinks. We undressed him and used mild measures to keep him from sleep until we could ascertain more accurately his condition. As soon as his clothes were removed, Mr. T. B. Scott, surgeon of this town, who had also been sent for, entered the room. We then gave a little ammonia with belladonna, and some coffee, and put mustard to the legs and strong smelling-salts to the nostrils. The vomit, which had previously been scanty and somewhat like froth and treacle, was now much increased; inequality of the pupils was more marked, and the difficulty of keeping him awake was greater; but with the remedies named we roused him sufficiently to get his own account of what had happened. He admitted, in reply to close questions, that he had taken during the day, in six to eight hours, about half a bottle of brandy for the neuralgia, and added that, though an abstainer, he always took it when suffering pain. It was evident, therefore, that this was the primary cause of his fit, and that the brain pressure resulted from it. Being convinced of this, we allowed him to sleep, watched by a nurse, and left him for two hours; at the expiration of which I returned and found him somewhat better, though still drowsy.

May 17th: The patient had passed a fair night and felt much relieved, but there was still inequality of the pupils and partial loss of sight in the left eye. He also complained of a "creeping" sensation at the "top" of the head near the centre, and occasionally extending to the forehead and eyes. I gave some bromide of potassium and gentian, with a little aconite for the neuralgia, and a dose of calomel with rhubarb for the bowels.—18th: The pupils nearly equal, the sight of left eye normal, and the "creeping" sensation less. He then gradually improved, till one week after the "fit" he was well enough to return to London.

I have recorded the case for two reasons: 1st, be-

cause of the combination of symptoms of alcoholic poisoning and apoplexy obscuring diagnosis; 2adly, because of the somewhat remarkable effect of half a bottle of brandy upon an habitual abstainer.

Bournemouth.

CRURAL NEURALGIA AFFECTING DENTISTS.

By J. B. SUTTON, L.R.C.P. Lond., M.R.C.S., &c.,
DEMONSTRATOR OF ANATOMY, MIDDLESEX HOSPITAL.

ON June 20th I was called to a gentleman said to be suffering severely from sciatica. The patient was resting on his right side complaining of intense pain in the left loin, radiating thence along the outer and anterior aspect of the left thigh whenever he attempted to move. Firm pressure, applied between tuberosity of ischium and great trochanter of femur, was painless, but the instant one touched the skin immediately over the erector spinæ muscle severe pain was evoked, extending down the thigh to the knee-joint, mapping out exactly the course of the anterior crural and external cutaneous nerves. Pressure over the points of exit of the second, third, and fourth lumbar nerves from the spinal canal caused excessive pain. The nerves at fault were clearly the second, third, and fourth lumbar, the hyperæsthetic area in the loin clearly corresponding to the distribution of the posterior divisions of these nerve trunks. The case was obviously not one of sciatica, but crural neuralgia, having a very unusual distribution; the ordinary forms of this disease extend to the foot and toes of the affected leg. Belladonna and aconite were applied locally, strychnia internally; the patient was convalescent in seven days.

Two days later a similar case came under my notice, and a third has been reported to me with exactly similar symptoms. Curiously enough, the three patients were dentists engaged in the active duties of their profession. It appears exceedingly probable that this painful affection may be explained by the fact that when dentists operate they always stand to the right side of the patient, consequently, when manipulating cavities in teeth difficult of access, it is necessary to throw themselves into a constrained attitude, whereby the lumbar vertebræ are slightly flexed anteriorly, but flexed laterally to a considerable degree. It is necessary sometimes to maintain this cramped position for long periods, the temporary distortion being even more exaggerated when the dental engine is being used. These combined flexions cause the lumbar nerves to become congested, irritated, and possibly injuriously nipped as they pass through the intervertebral foramina, thus giving rise to the symptoms detailed above.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

A CASE OF RHEUMATOID ARTHRITIS TREATED BY LOCAL APPLICATIONS OF IODINE, AND BY SALICYLATE OF QUININE INTERNALLY; REMARKS.

(Under the care of Dr. POLLOCK.)

FOR the following notes we are indebted to Mr. Wigan, resident medical officer.

Eliza M——, aged twenty-five, was admitted on June 1st, 1882, complaining of rheumatic pains in the wrists, knees, and feet. She stated that she was perfectly well till the age of twenty-three. Up to that time she had been very stout, only complaining of occasional headache. In August, 1879, she caught cold and was laid up for three weeks with acute rheumatism. She resumed her duties as domestic servant, but still complained of occasional rheumatic pains. In the spring of 1881, the pains became much worse, but she did not take to her bed, being still able to do a little work. At the end of six weeks, being still unfit for work, she went down to St. Leonards Convalescent Home, and remained there for six weeks.

She returned to her situation in August, 1881, and kept fairly well up till Christmas, when she was obliged to give up altogether. She was just able to walk with difficulty, and her hands were almost useless. She noticed that the joints (especially the carpo-metacarpal) of the wrist and also the tarso-metatarsal joint of the big toe were increasing in size. These swellings steadily increased, and at the time of admission there were very apparent thickening and crepitation on rubbing the surfaces of the cartilages together. No other joints were yet affected. Her father and mother had both suffered from chronic rheumatism; one brother had rheumatism two or three times, but he died of phthisis at the age of twenty-three.

On admission on June 1st the temperature was 99°; pulse 90. She was placed on a low diet, and given the following:—Two grains of sulphate of quinine, two grains of carbonate of ammonia, and twenty grains of bicarbonate of potash, in water, three times a day.

June 5th: As she did not improve, and still complained of constant pain in the wrists and feet, she was put on a generous diet—viz., meat and vegetables, two eggs, three ounces of wine, and an extra pint of milk. The mixture was stopped, and instead she took five-grain doses of salicylate of quinine, in the form of a pill, three times a day. This after three or four days relieved her much. She lost all pain in the joints, and was able to bend them freely. On the 6th the joints of her hands and feet were ordered to be painted every second day with a liniment of iodine, which was continued up till July 6th, except on one or two occasions, when it was stopped on account of the irritation of the iodine. On the 7th the patient left for St. Leonards Convalescent Home, having lost all pain in the hands and feet, and being able to move all joints without difficulty, five weeks having elapsed since her admission, during which time the temperature had never been higher than 99·8°.

Remarks.—Dr. Pollock observed, with regard to this case, that, bearing in mind the frequently intractable nature of the disease, the result obtained by the treatment was very satisfactory. The importance of good feeding has been long ago pointed out by Dr. Garrod, and the liberal diet had probably much to do with the improvement of the patient. But from experience of similar cases, Dr. Pollock is inclined to attribute benefit to the continued use of the iodine paint over the affected joints, and also to the administration of the salicylate of quinine, a drug which he believes to be well worthy of an extended trial in all cases of rheumatoid arthritis where the joints are not hopelessly disorganised.

RADCLIFFE INFIRMARY, OXFORD.

CONGENITAL HYDRONEPHROSIS SUCCESSFULLY TREATED BY ASEPTIC INCISION IN THE LOIN AND DRAINAGE; REMARKS.

(Under the care of Dr. TUCKWELL and Mr. H. P. SYMONDS.)

A BOY, aged eleven, was admitted under Dr. Tuckwell's care on June 22nd, 1881. His family history was good, and he had been always remarkably healthy, having never received any injury nor complained of any pain. His mother stated that she had not noticed anything unnatural in the size and shape of his abdomen till about fifteen months before admission, when it had struck her that the left half looked larger than the right. Since then there had been a steady increase in the size of the left half, but the boy's health had not suffered in the least; there had been no pain, no increased frequency of micturition, nor any change in the natural appearance of his urine. The boy had a remarkably healthy and cheerful look. On examining the abdomen, a large swelling could be seen bulging forward the whole of the left and part of the right side. A clear wave of fluctuation was felt over the whole of the tumour in front. When he was turned on his face, the left lumbar region behind was also bulging, and fluctuation was clearly communicable from the front to the back. There was neither pain nor tenderness in any part of the swelling, which was uniformly elastic, giving to the hand the sensation of fluid in a tense, thin-walled sac. Dulness on percussion reached from the sixth left intercostal space, in the nipple line, to within two inches of Poupart's ligament.

A line drawn from below the left nipple to a point three inches to the right of the umbilicus, and thence obliquely across to the left iliac fossa, marked the boundary of the tumour to the right. A line drawn from the same point above obliquely downwards and backwards to the vertebral column marked the limit of the tumour to the left and posteriorly. The only resonant part of the abdomen was the right flank. All the rest was dull; nor could any line of resonance in front of the tumour, such as would be caused by the descending colon and assist in the diagnosis of kidney disease, be recognised. The urine was quite normal. This large sac containing fluid was thought to be either a cyst connected with the left kidney or a hydronephrosis, probably the latter; and as there was an entire absence of pain or other history to account for it, it was thought to be probably congenital, due to some malformation of the ureter, not large enough to attract attention till within the last year or two, when it had increased more rapidly. Although it gave the boy no pain and did not interfere with his breathing, yet, from its size and prominence, it was clear that a slight blow or push might rupture it and cause death by peritonitis. It was decided, therefore, to do something for the boy's relief.

On June 27th, Mr. Symonds introduced an aspirator needle into the most prominent part of the tumour in front, and drew off from three to four pints of turbid, dark-brown fluid, without smell, having a specific gravity of 1008, and containing altered blood, albumen, and urea. No bad symptom followed the operation. The sac gradually refilled, and the boy left the infirmary on July 14th in much the same state as before the operation.

He was readmitted on December 7th. He had been quite well, and had suffered from nothing but the inconvenience caused by his great size, the tumour being even larger than it was when he left the infirmary. The question of repeated tapping with the aspirator, on the one hand, and of laying open the sac behind and draining, on the other, was discussed, and the latter course was chosen because of the rapidity with which the sac had refilled after the first operation.

On January 2nd, 1882, the boy was put under ether; an aspirator needle was passed by Mr. Symonds into the sac in the loin behind, so as to avoid the peritoneum; an incision, an inch and a half in length, was carefully made by the side of the needle well into the sac, and a large drainage-tube was passed in with little difficulty, the cyst walls yielding before the finger. The usual Listerian precautions were rigorously carried out. Fluid of the same character as before flowed freely through the opening, and as soon as this had ceased running, antiseptic dressing was applied. For the following eight days the wound was dressed daily under the spray, till on January 9th scarcely any discharge came away in the dressings, at the end of twenty-four hours, and no remains of the tumour could be felt in the abdomen or loin. The temperature, which was 99° on the evening before the operation, rose gradually to 103° on the third evening after, and then fell to 99° on the eighth day.—10th: The large drainage-tube was to-day removed and a smaller one put in. The same evening the temperature rose to 103·8°, and the following two evenings to 103° and 102°. The sac refilled with marvellous rapidity, till on the 12th of January it had reached a larger size than before the operation, and was even more tense. There was a narrow line of resonance in the right flank, but the rest of the abdomen was absolutely dull and fluctuating.—13th: The boy was again put under ether. On passing the finger into the opening in the loin it was found that the small tube had not penetrated into the sac, the opening into which had slipped under the edge of the muscle, and the contents had been thus prevented from escaping. The finger was then pushed on into the sac, when a gush of dirty-looking inodorous fluid, mixed at last with blood and pus, in quantity about four pints, took place. A long, full-sized tube was reintroduced well into the interior of the sac, and antiseptic dressing was applied as before. From this time onwards there was only steady progress towards recovery to record. The temperature fell on the fourth evening to 98°, and for the rest of the time that the boy was under treatment never rose above 101°, ranging from 98° to 100°, till it fell to and remained at normal. The wound was dressed at first daily, then every other day, inodorous pus, in gradually diminishing quantity, draining off into the dressings.

March 8th: The large tube was taken out, and one of the same length, but of smaller size, put in.—29th: The tube was shortened to an inch and a half in length.

April 6th: The tube was removed, thirteen weeks from the date of the operation.—10th: The patient got up, an antiseptic dressing being fastened on the wound by plaster.

May 10th: The wound had quite healed; the abdomen appeared symmetrical; no tumour could be felt; the percussion-note in the left flank was not quite so clear as in the right, but not dull, nor did it alter on changing the boy's posture. There was a slight puckering in of the skin at and around the wound.

June 16th: A careful examination of the abdomen showed no sign of any return of the tumour. The boy was quite well, and at school.

Remarks by Dr. TUCKWELL.—So little is to be found in books on the subject of the treatment of hydronephrosis that the above case may be worthy of notice. Thus, in Ebstein's chapter on the therapeutics of this disease, in Ziemssen's Cyclopædia, nothing can be more unsatisfactory than the results there given of operative interference in such cases. After reading it, one is inclined to leave the disease to itself rather than meddle with it in any way. He says, "The puncture of hydronephrotic sacs is dangerous, because an outbreak of general peritonitis is always to be feared. It is generally of little value, because the sac is likely to refill in a short time." He also records a case of treatment by incision which proved fatal. But, judging from the boy's case herewith reported, it would appear that in a young subject, provided that a normal urine indicates a healthy state of the other kidney, the operation of antiseptic incision in the loin and drainage may be safely undertaken. Tapping with the aspirator is followed by so rapid a refilling as to make one fear that repetitions of this might go on for an indefinite time. Supposing an incision to have been made, a point to which attention may be especially drawn is the danger of removing the drainage-tube too soon. These sacs seem to retain immense power of refilling, till at least many weeks of drainage and gradual shrinking have passed by. A gradual puckering in of the skin at the seat of incision seemed to mark the gradual contraction of the sac, and might, perhaps, be looked for as a favourable sign in any future case of the kind.

GOCULDAS TEJPAL HOSPITAL, BOMBAY.

LARGE ELEPHANTOID TUMOUR OF SCROTUM, WEIGHING FIFTY-SIX POUNDS; REMOVAL; RECOVERY.

(Under the care of Surgeon-Major T. CODY.)

A MUSSULMAN, aged thirty-five years, was admitted for a large elephantoid growth involving the penis and scrotum, and also for a similar growth occupying the left leg. The man was a scrofulous subject, and had some open suppurating sores in his neck, where also some old cicatrices were visible. He was anxious to be operated on; but as he was in a delicate state of health on admission the operation was put off for about a month. He had tonic treatment, under which his general health much improved. The tumour reached below the knees, and the penis had retracted into the growth. The prepuce was healthy, as was also a small patch of integument corresponding to the dorsum of the penis. For three hours before the operation the tumour was raised above the level of the body, and at the same time an indiarubber bandage (Esmarch's) was bound round it. When the patient was brought under chloroform the glans penis was searched for, and drawn out and grasped in the left hand, together with the piece of healthy integument before referred to as corresponding to its dorsum. An incision was then commenced at the lower margin of the prepuce, and carried upwards and backwards on the right side as far as the root of the penis; it was then carried downwards and outwards for about five inches, going through healthy integuments and dividing it and the subjacent tissues in its course. The fingers were now used to tear through the fasciæ and search for the cord, which was easily found. Its course was followed down till the testicle was reached and freed, nothing but the fingers being used to do so; and both being found healthy they were turned up on the abdomen and held there in position by an assistant. A similar incision was then made on the left side, and the fingers used as before described to divide the deeper layers of fascia. The search for the cord was embarrassed by a large hydrocele, into which a long incision was made and the fluid allowed to escape, which must have amounted to at least twenty-five pints. After this the cord was

easily found, but the testicle was observed to be diseased, so it was removed and the cord secured. The incisions were now carried round the root of the tumour, going very close up to secure healthy integument, and three or four touches of a Catlin divided the mass. The arteries, which had been clamped as they were divided in the course of the operation, were now secured, and it was found that only four required ligature, the pressure of the small clamps having proved sufficient to effectually close the smaller ones. The right testicle, which was preserved, was now brought down and placed in the centre of the wound, the surface of which was washed with carbolic water. Three sutures of silver wire, each of which was passed through the covering of the testicle, were inserted in the lower portion of the wound, and stretched and twisted so as to give an inward tendency to its margins, without, however, bringing them into apposition. Two other sutures, above the situation of the testicle and at the root of the penis, were inserted, and a little stretching brought the margins of the wound at this point into apposition. The healthy piece of integument and the prepuce were attached also by wire sutures to the subjacent tissues and the margins of the wound, though they could not be brought into apposition. The whole surface was now covered with carbolised oil dressing, over which a thick layer of carded oakum was placed, and the whole kept in position by a *langvotu*. This article of the East Indian's dress requires explanation. It is a piece of cloth attached behind by a knot to a string passed round the body above the hips, and brought forward between the legs, spread out to envelope the penis and testicles, and fastened again to the string above the pubis. There was no oozing after the operation, and the dressing was not removed till the second day. After four or five days it was found that the integument had adhered to the tissues round the testicle, as it had also in other parts; and the wire sutures were therefore removed and the wound allowed to granulate.

There was some suppuration and free discharge for about a fortnight; but as soon as the ligature of the left spermatic cord came away the discharge lessened, and the wound steadily though slowly continued to heal and contract, and his general health to improve till he left the hospital about two months after the operation. Some three months after leaving the hospital he showed himself. He then looked hale and well; the disease in his leg had considerably lessened, and gave him little or no concern; and the cicatrix, which was quite smooth and healthy looking, occasioned no uneasiness. He quite retained his virile powers. The solid mass removed weighed fifty-six pounds, and it was calculated that during the operation some thirty pounds of fluid must have escaped.

Reviews and Notices of Books.

Antiseptic Surgery; its Principles, Practice, History, and Results. By W. WATSON CHEYNE, M.B., F.R.C.S., Assistant-Surgeon to King's College Hospital, Demonstrator of Surgical Pathology at King's College. With Illustrations. London: Smith, Elder, and Co. 1882.

IN the volume before us Mr. Cheyne has made a very valuable addition to surgical literature. The intimate professional relations of Mr. Cheyne with Professor Lister give a special importance and value to this work; for while Mr. Lister's results and views have hitherto been published only fragmentarily in journals and the Transactions of learned Societies, Mr. Cheyne's book affords a trustworthy and complete statement of them. The work is dedicated to Mr. Lister, and this fact may be taken as proof that he accepts as accurate the statements contained in it regarding himself. We do not say this from any intention of minimising the writer's part, but only to point out that the book is *more* than any mere individual production of that gentleman could be. The title of the work expresses concisely and accurately its plan and contents. The scientific groundwork on which Mr. Lister's treatment was originally founded and firmly rests, receives very full and careful treatment from Mr. Cheyne, who deals first with the theory of fermentation, tracing the history of the particulate theory up through all its stages, from Lavoisier to Tyndall, and demonstrating the undoubted establishment of this theory. In a similar historical and complete manner, the struggle over spontaneous generation, heterogenesis and abiogenesis, is passed in review, and the reader is led almost irresistibly to adopt the conclusions on which antiseptic treatment of all kinds rests. The author is at pains to distinguish between Mr. Lister's special treatment and what we may group together as the various modifications of it which are practised by many other surgeons. It is maintained that the former may and should be called the *aseptic treatment*, because it attains "a complete absence of putrefaction—an asepsis"; while the other methods of treatment "by which the occurrence of putrefaction is more or less interfered with," and which "all act on a more or less imperfect principle," should be called *antiseptic*. This is by no means a verbal quibble, but is a distinction so important as to demand clear recognition and verbal expression. Mr. Watson Cheyne has himself during recent years taken no inconsiderable share in the experimental investigations which form the basis of the aseptic treatment, and we anticipate much more valuable work from him in the same department. In view of this we may perhaps offer him some advice as to his style. He cannot help being a partisan, and no one with any knowledge of the history of the discussions that have ever gathered around the "germ theory" can now look for any investigator to be altogether free from bias. The author, however, has guarded himself by free quotations from the writings of those whose views do not coincide with his own. But in several places he has allowed himself to speak with but scant courtesy of the opinions therein or elsewhere expressed by these gentlemen. Any such expressions altogether fail in their purpose, and rather prejudice an impartial reader against the cause pleaded by him who uses them. We think we could refer to several passages which would have been far more effective for Mr. Cheyne's purpose if this point had been more carefully observed.

The part of the book which will perhaps be erroneously called the more practical part, deals with the materials used and the exact mode in which they are employed in Mr. Lister's aseptic treatment, and then specifies the results obtained by it. Of the former we need say nothing, except to point out that nowhere else can a surgeon find this information so fully given. The results of the aseptic treatment are detailed with great fulness, nearly half the volume being devoted to their consideration. Mr. Lister's statistics are given with minuteness and great care, as well as tables of all his cases of compound fracture, wounds and incisions into joints, and abscesses connected with disease of the vertebræ, treated in hospital since 1871, the details of each case being stated. In addition we have the statistics published by Volckmann, Nussbaum, Socin, Esmarch, Hueter, Reyher, Spencer Wells, Keith, and Thornton, and many others of Mr. Lister's disciples; and as far as possible statistics of surgeons using other forms of treatment are presented for comparison, but there is a great want of really trustworthy facts on which to found such a comparison. The reader, however, hardly needs them. We could easily summarise these statistics, but we prefer not to do so. Such summaries are proverbially untrustworthy, and certainly not generally credited. We prefer to urge our readers to study this book for themselves, to master the *scientific facts* on which an aseptic treatment is based, and to study diligently the *clinical facts* which Mr. Lister and his close imitators show. Only those who have taken special care to keep themselves *au courant* with the rapid strides of this department of biology are aware of the immense mass of facts on which the "germ theory," as it is popularly known, rests. Those who do not may innocently speak of it as an "unproven theory," but a careful study of Mr. Cheyne's *résumé* will, we fancy, dispel this illusion. The clinical facts are so striking that surgeons but a generation ago would have rejected a prophetic description

of them as an empty dream of the impossible. Hitherto the information on which to base a sound opinion on both the theory and the practice here urged has been so difficult to obtain, except by those specially engaged in this field of scientific research, that surgeons have had some excuse for ill-formed opinions and judgments. But such excuse can no longer exist. Within 600 octavo pages can now be found all that is needed to make the question clear to any mind, and ignorance on this point on the part of any one claiming to be an educated surgeon will be inexcusable; and it needs no prophetic vision to foretell the effect of the spread of a more complete knowledge of the subject.

Mr. Cheyne has published his book at a most opportune time; he has abundant facts to make his position good, and he has been able to state his case so completely, that we believe the issue of this work will be a starting-point for the more general adoption of Mr. Lister's treatment in this country. Never before could the course of aseptic surgery be pleaded so effectively—nowhere else has it been stated so fully—and we cannot believe that British surgeons, who hitherto have been foremost to avail themselves of all life-saving improvements of their art, will be backward in accepting this, the greatest of the century.

Manual of Diseases of the Skin. With an Analysis of 8000 Consecutive Cases and a Formulary. By L. DUNCAN BULKLEY, A.M., M.D., Attending Physician for Skin and Venereal Diseases at the New York Hospital. Crown 8vo. London: J. and A. Churchill. 1882.

DR. BULKLEY of New York, who is well known as the translator of Isidor Neumann's Handbook of Skin Diseases, the author of a recent treatise on "Eczema and its Management," and as the editor of the "Archives of Dermatology," has now set his hand to supply a manual or introduction to the study of diseases of the skin. The book had its foundation, apparently, in the clinical conversations and pharmacopœia of the New York Hospital, and in preparing the work for the public Dr. Bulkley has endeavoured to make it concise, and yet sufficiently detailed to be of practical value to the student and practitioner. The author prefaces the consideration of the various diseases by a brief sketch of the anatomy and physiology of the skin, an outline of etiology, and a few general observations on diagnosis, or how to set about, and what to pay attention to in, observing skin disease (including an explanation of the elemental lesions). There is a chapter on the relative frequency of diseases of the skin, founded on 8000 cases observed by the author. The nomenclature and classification are based on Hebra's arrangement. Diet and hygiene are specially discussed, and there is a final chapter on therapeutics, and a very complete index. The excellent formulary is an important feature, and will be valuable to practitioners, especially as the treatment of each disease is pretty fully indicated. In the body of the manual pathology is but very briefly considered, and the differential diagnosis is hardly entered into at all, which is, we think, to be regretted. Excellent as the book is in many respects, we fancy we can trace signs of hurried or careless writing. To particularise a few instances, beyond the general composition of the book, we fail to find any description of what in England is known as miliaria, and in the mere mention of Lichen tropicus nothing is said of its occurrence in the tropics, but only that it is seen commonly in infants. Urticaria papulosa (Lichen urticatus) is pre-eminently a children's affection, but Dr. Bulkley merely observes that it is "most commonly seen in children." Tilbury Fox's dysidrosis, too, does not occur "especially upon the backs of the hands and between the fingers," and from among the causes of Pruritus vulvæ, diabetes is omitted. Then, although such a local affection as frambœsia is described, no mention is made of the Oriental sores nor of guinea-worm disease.

Experimental Physiology; its Benefits to Mankind. By RICHARD OWEN, C.B., M.D., F.R.S. London: Longmans, Green, and Co. 1882.

THIS little treatise is a powerful attack on the absurd efforts of the anti-vivisectionists to repress the scientific investigation of disease by means of well-devised physiological experiment; and it is very cheering to find a man occupying the distinguished position of Professor Owen speak with such decision on points respecting which his knowledge is a thousandfold superior to those who have been so misguided as to legislate on subjects of which they know so little. The high position which Professor Owen has long held amongst the *savans* of Europe, his wide knowledge and great ability, and his thorough familiarity with the points at issue, entitle him to speak with great authority on experimental physiology, and he speaks with no uncertain sound. He shows clearly that those who argue in favour of total abolition of vivisection on the ground of humanity do practically prevent the discovery and application of means for the relief of suffering humanity. It is true, the consistent "bestiarian," as Professor Owen terms the anti-vivisectionist, may say, "I never had an ovarian tumour or a Fallopian pregnancy. Let those women with such complaints get rid of them as they can. My mission, with the help of a lord chief justice of England, a cardinal, an archbishop, bishops, peers, baronets, heads of colleges, is to haul up to Bow-street every experimental advancer of physiological science as an immoral offender, an unfeeling inhuman wretch, a displeaser of Almighty God, a horrible torturer of his creatures." Professor Owen not only defends the experimental physiologist by irony and ridicule of his opponents, but more seriously points out the many important advances and valuable acquisitions to our knowledge that have resulted from experiment. Professor Owen has incorporated the address he delivered at Folkestone on the occasion of the unveiling of the statue of Harvey in the present volume, which will be read with satisfaction by all those who have the true interests of science at heart.

The Surgery of the Rectum. Comprising the Lettsomian Lectures on Surgery delivered before the Medical Society of London, 1865. By HENRY SMITH, F.R.C.S., Surgeon to King's College Hospital, &c. Fifth Edition. London: J. and A. Churchill. 1882.

IT is almost superfluous to do more than notify the fact that Mr. Smith has been called upon to furnish another edition of his well-known book. He has added to this edition a short introductory chapter on the examination of the rectum, which, like the rest of the book, is brief and to the point. Mr. Smith's increased experience has served only to intensify his confidence in his clamp and cautery for the cure of hæmorrhoids and prolapsus ani. He has found it answer equally well in the most trivial and the most severe and extensive operations, and he feels justified in recommending its general use without any fear. Like all other modes of treatment, it requires to be used with care and attention to certain details, but when these are observed he has failed to notice the unfortunate results feared by others. He mentions some of the more recently introduced methods of operating, only to state that he has seen no sufficient reason to abandon a thoroughly successful and well-tried plan, for any one of them. By an oversight, no doubt, Mr. Smith advises complete division of the sphincter ani for nearly all cases of fistula in ano. A very large proportion of such fistulæ result not from abscesses in the ischio-rectal fossa, but from anal abscesses, and in these the thickened skin and mucous membrane only are divided, and the sphincter is left entire. Only in cases of fistula running into the ischio-rectal fossa is it necessary to divide the sphincter, nor, indeed, is it ever done in others.

The Student's Guide to Diseases of the Eye. By EDWARD NETTLESHIP. Second Edition. pp. 395. J. and A. Churchill, New Burlington-street. 1882.

MR. NETTLESHIP has made considerable additions and, we think, improvements in the present edition. He has introduced a chapter on "optical outlines" which gives to the student all he needs to know with respect to the action of lenses and prisms on light. It is, however, a subject for regret that such a chapter should have to be placed at the head of a work on diseases of the eye. If school education were properly conducted, if a preliminary examination of an appropriate character for those entering the profession were insisted on, the information here given would be regarded as rudimentary, and might be replaced with one showing the application of higher mathematics to the optical properties of the ocular media. A set of seventeen coloured papers with descriptive letterpress has been added to illustrate the subject of colour-blindness. Holmgren's wools are mentioned, but Mr. Nettleship does not refer to Dr. Thomson's very convenient set of coloured wools which enables the observer to refer to previous notes with facility. Mr. Nettleship has the authority of Skeats, which is great, for spelling lacrymal "lacrimal," but it is unusual. The work will be found very useful both by the student and the practitioner, and the rules laid down for treatment are sound and valuable.

Modern Dress and Clothing in its Relation to Health and Disease. By T. F. PEARSE, M.D. London: Wyman and Sons. 1882.

WITHOUT committing ourselves to the details of Dr. Pearse's little book bearing the above title, we cannot but welcome the appearance of any and every rational attempt to enlighten and impress the public, and particularly the female section of the community, with the need of promptly correcting obvious errors of policy in respect to clothing, and the wisdom of breaking loose from the fetters of fashion and adopting a more reasonable and healthy style of costume. We can see at a glance that the *brochure* to which we have alluded embodies views which we do not entertain, and would not, therefore, endorse, but it is on the whole a valuable and opportune summary of the more important facts about dress, concisely stated, and as such will be certainly useful. The first step on the way to radical reform must be independent thought, and it is not to be expected, nor indeed desired, that all should see alike on this important subject. We are agreed as to more prominent evils of the modern type of dress, and see together as to the measures to be taken with a view to amend these errors. Dr. Pearse quotes largely from Mr. Treves, and he could not cite a more able and popular recent writer.

Burdett's Official Intelligence. London: E. Couchman and Co.

APART from its interest and value to all who invest or deal in any of the innumerable financial securities known to the London Stock Exchange, "Burdett's Official Intelligence" for 1882 is remarkable both as a reflex of the enormous proportions and infinite varieties of our means for investing national savings, and as a statistical *tour de force*. Viewed in either of these three aspects, this first issue of the work under notice, with its more than 900 pages of well-arranged information, undoubtedly meets a decided want, and fully merits its favourable reception in the financial world. The work, which has been prepared under the direction of, and is officially issued by, the Stock Exchange Committee, purports to contain a carefully compiled statistical *précis* of information respecting all British, colonial, and foreign loans and companies, comprehending as far as possible "all joint-stock enterprise at home and abroad." It is proposed to re-issue the volume annually under the editorship of the secretary of the Share and Loan Department of the Stock Exchange, Mr. Henry C. Burdett, long and favourably known to the readers of our columns for his contributions bearing upon the respective merits of large and small hospitals, and upon hospital statistics in general. The value of this work is immensely enhanced by its official character, which impresses with confidence the assertion in the preface that each edition is intended to present "a colourless and neutral, but thoroughly trustworthy *précis* of information concerning all classes of securities." The securities of which detailed information is given are not solely those "officially quoted," but include all others which the editor, after careful investigation, deemed to possess any public interest. A statistical account is given of every security which is quoted in any list issued by any Stock Exchange in the United Kingdom. The present volume contains a summary and notice of all the new companies—about 1400 in number—which were promoted during last year, and the introduction contains a short historical summary of the growth of the Stock Exchange, coincidently with the increase in the number and value of financial securities. In 1697 the first "Official List" was issued by the Stock Exchange, under the title of "The Course of the Exchange," and contained particulars of but *six securities*, chiefly Government Stocks, and up to 1811 their number had only increased to twenty. From the alphabetical index to "Burdett's Official Intelligence," beginning with "Abbot, John and Co.," and ending with "Zoedone Company," we roughly estimate that nearly 2400 securities find enumeration and detailed description in the volume. This gives some idea of the growth of invested capital in the United Kingdom since the beginning of this century. The arrangement of the vast mass of information contained in "Official Intelligence" is at the same time simple and satisfactory, and we cannot doubt that as a book of reference the annual issue will become indispensable.

New Inventions.

"SANITAS," "SANITAS" OIL, "SANITAS" GAUZE.

SANITAS is now widely and favourably known as a disinfectant and deodoriser which possesses the valuable properties of being in itself harmless, and of having a very agreeable odour. The "Sanitas" Gauze is prepared as a dressing for wounds, and resembles in all but odour the more familiar carbolic acid gauze; it is of course free from the toxic effects of the latter, and is certainly possessed of antiseptic powers. The "Sanitas" Fluid is a clear watery liquid which is miscible with water in all proportions, and can be used in the form of spray or lotion. If used pure, it does not cause any local irritation. "Sanitas" Oil can be used for a spray (not so good for this purpose as the fluid), or as a dressing to wounds, either pure or diluted with olive oil, or dissolved in alcohol, or as an ointment. It is possessed of great oxidising properties, the oil being stated to be equal in strength to a ten volumetric solution of peroxide of hydrogen. This fact, together with its non-poisonous and non-irritating properties, its pleasant odour, and inexpensive price, make this article a very valuable antiseptic agent.

ANTISEPTIC ADHESIVE BANDAGE: HEFTBAND.

HEFTBAND is the name of a new antiseptic adhesive plaster manufactured by A. Hutchinson and Co., at Mannheim, whose London agents are Messrs. Maw, Son, and Thompson. The adhesive material is a preparation of india-rubber; what antiseptic material is employed is not stated. It is a soft supple thin plaster, and is stated to adhere to moist surfaces, but the sample examined by us is totally devoid of this much-desired property.

THE LANCET.

LONDON: SATURDAY, JULY 29, 1882.

THE process of the coagulation of the blood is of the highest practical importance in surgical pathology, in connexion with the means by which hæmorrhage is arrested. In this special relation the process has been recently studied by HAYEM, whose previous investigations on the physiology and histology of the blood have supplied important additions to our knowledge. These latest researches of HAYEM formed the subject of a recent communication to the Paris Académie des Sciences. They relate especially to the part played by the minute corpuscles to which he has given the name of "hæmatoblasts," a subject which is of interest in connexion with the views of BIZZOZERO on the influence of his *blutplattchen* on the process of coagulation, to which we lately called attention. HAYEM pointed out that ANDRAL, long ago, noted in the superficial layer of blood standing in a vessel, whether pure or mixed with a solution of sulphate of soda, innumerable minute white corpuscles 1-500th of a millimetre in diameter, around which the filaments of fibrin form. VULPIAN, in 1873, observed that some of these filaments seem to proceed from the corpuscles, and RANVIER expressed the opinion that these minute bodies were merely small masses of fibrin, which become centres of coagulation. HAYEM, however, believes that the elements described by these and other authors are merely altered forms of the hæmatoblasts which he described in 1874, and which undergo almost instantaneous change when removed from the body. He has shown that these elements, under abnormal circumstances, possess remarkable viscosity, adhering to one another and to foreign bodies, and that this is the first of a series of changes consequent on which they become the points of origin and of attachment of the filaments of the fibrinous meshwork. Further, he now shows that all the conditions which retard or prevent the coagulation of the blood hinder the alterations in the hæmatoblasts, while influences which facilitate the latter also promote coagulation, a method of proof the same as had been previously adopted by BIZZOZERO. These considerations make it probable that the hæmatoblasts take an active part in the formation of clot which arrests the hæmorrhage from a divided vessel, and of this HAYEM now furnishes conclusive proof. Such hæmorrhage, rapid at first, gradually becomes slower, and finally ceases. The diminution and arrest cannot be explained by the mere contraction of the wall of the vessel, which, although strong in the arteries, is absent in the veins, and could not by itself close the vessel entirely. The actual arrest is by the coagulation of the blood, although it is not easy at first to see why such coagulation should occur at the open mouth of a vessel through which a stream of blood is flowing, and in which, therefore, no stasis takes place. If an incision is made into the jugular vein of a dog, and a ligature be placed on the peripheral portion of the vessel as soon as the hæmorrhage has ceased a small clot can be extracted from the wound. This clot has the form of a nail, of which the point penetrates into the lumen of the vessel, while the head rests on the outer wall of the vein. If the coagulum is plunged into a liquid which fixes the elements of the blood, it can be thoroughly examined. The point and middle part are greyish, viscous, and composed of a material partly granular and partly amorphous. The granules are constituted by enormous quantities of hæmatoblasts, already altered, but still distinct and separate, while the amorphous material results from the confluence of hæmatoblasts which have undergone still more alteration. The head of the coagulum is red externally, and contains in the centre a prolongation of the viscid hæmatoblastic material, and at the periphery a large number of red globules are contained in fibrillary meshes. In the central portion, which really closes the wound, very few white corpuscles can be perceived. It thus appears that the fibrin is added to an original nucleus, which consists almost exclusively of hæmatoblasts. The formation of this may be watched in the mesentery of the frog. A small vein having been brought into the field of the microscope, it is divided incompletely by means of the point of a small scalpel. The free flow of blood from it soon lessens, the orifice being narrowed by a mass of elements which collect and adhere at the opening of the vessel. In a few moments the opening is covered by a whitish mass, into which the red corpuscles enter with difficulty. Instead of being formed by white corpuscles, as many observers state, this mass is formed exclusively of hæmatoblasts, which are arrested during the flow of blood. At the moment at which the hæmorrhage ceases, these elements are already considerably altered, and undergo further changes beneath the eye of the observer. This hæmatoblastic aggregation contains only a small proportion of white corpuscles. These are spherical, smooth on the surface, and not adhesive, since if the observation is prolonged for a short time, they may be seen to make their way out of the hæmatoblastic mass by their amœboid activity. They appear to take no part in effecting the arrest of hæmorrhage, and present their normal physiological properties and anatomical characteristics at a period at which the hæmatoblasts are profoundly altered.

In this process the edges of the wound in the vessel appear to act as a foreign body. The hæmatoblasts behave in precisely the same way to an actual foreign body which is introduced into the current of blood. A metallic thread was passed into the external jugular vein of a dog, by means of an extremely fine needle, so that scarcely a drop of blood escaped. At the end of two or three minutes the segment of vein traversed by the wire was emptied by means of two ligatures, one placed on the peripheral and the other on the central portion, and was then excised and opened after having been placed in a liquid capable of fixing the elements of the blood. The wire was already covered by a thin grey layer composed of innumerable hæmatoblasts, individually the more distinct the shorter the time that the wire remained in the vessel. If the wire was for a considerable time in contact with the blood, the collection upon it had precisely the characters of the mass which closes a divided vessel.

Thus the essential part of the process of the arrest of hæmorrhage appears to be played by the hæmatoblasts, which when they arrive at the edge of the wound become

adhesive and collect on it as they would on a foreign body, and to this collection other similar elements are being constantly added from the current of the blood, until the opening is closed and the flow of blood arrested. The other elements in the blood, and the formation of fibrin, only participate in the process in an accessory and secondary manner. The blood contains within itself its hæmostatic; and if all these elements could be conceived to be absent from the blood, the tendency of hæmorrhage to spontaneous arrest would cease.

These facts have an important practical application. Since all foreign bodies alter and retain the hæmatoblasts, and since an abnormal condition of the vascular wall seems to have the same action as a foreign body, we can understand why intravascular coagulation occurs upon a portion of the wall of the vessels or the heart which has been altered by disease. So, too, we can understand the hæmostatic action of foreign bodies placed in contact with the surface of a wound, especially powdered or spongy substances, which may serve to collect the hæmatoblasts of the blood. These elements undergo changes the more rapidly under the influence of warmth, and this HAYEM thinks may explain the effect of injections of warm water in arresting hæmorrhage; but in this the influence of the vaso-motor system no doubt modifies the result. In animals it has been found that the more slowly the blood coagulates the less readily do the hæmatoblasts undergo modification. Since these elements may undergo alterations in quantity and quality in various diseases, we can understand that these modifications in the blood may predispose to hæmorrhages on the slightest vascular lesion. HAYEM throws out the suggestion that hæmophilia, the pathology of which has hitherto eluded discovery so completely, may be merely the consequence, or rather the expression of some peculiar condition of the hæmatoblasts. He relates the case of a man, aged fifty years, who was almost dead in consequence of an extreme epistaxis, to which he had been liable for thirty years. An examination of the blood showed a remarkable paucity of hæmatoblasts, which, moreover, underwent changes far less readily than in the normal condition. To this HAYEM attributed the obstinate hæmorrhage, which for three weeks had been renewed whenever the plugs were removed from the nostrils. He therefore proposed to transfuse a quantity of normal human blood, which, containing active hæmatoblasts, might restore to the blood its coagulating power. One hundred and twenty grammes of blood were, therefore, injected, with the effect of immediately arresting the hæmorrhage. After the operation the plugs were removed from the nostrils, but not a drop of blood was subsequently lost. These facts are certainly remarkable, and, taken in conjunction with those described by NORRIS and BIZZOZERO, constitute an important addition to our knowledge of the mechanism of the arrest of hæmorrhage.

WE are inundated with letters on the subject raised by "M.D. Edin." in THE LANCET of July 1st. We regret that it is simply impossible to find room for these communications, which, though very excellent, are also very long. With the greater part of a letter from Dr. BROOM, of Clifton, we must close the discussion on this subject for the present. Both sides have been already fully stated in our columns. In doing so we shall venture to express a few thoughts of our own on the question at issue.

The letter of "M.D. Edin.," which started the present controversy—which, by the way, periodically arises—is that of a man who evidently has got his education at a university or universities, and who is fortunate enough to possess the degree of the famous and ancient University of Edinburgh. He is grieved that the majority of the profession are at present engaged in the compounding and sale of drugs. He attributes this to the fact that the highest ambition of our English students is to look to the possession of a licence as apothecary; who, however, are not content to be known by the title of "Apothecary SMITH" and "Apothecary BROWN." Still worse: "The principal reason why these men dispense drugs is that they are catering for popularity by the sale of cheap physic. Men who cannot keep their patients while prescribing as gentlemen, instead of tinkering in drugs as tradesmen, have mistaken their vocation," &c. Our correspondent is very anxious to know "from what schools these men came and what qualifications they hold."

We cannot think that our correspondent has done full justice here to the great bulk of English practitioners, or that he rightly estimates the place of medicine and dispensing in medical practice. To take his last point first we will venture at once to say that the men who are selling both drugs and medical advice on unworthy terms are not all mere apothecaries. Very many of them will be found to possess a qualification from corporations north of the Tweed. We are amongst the number of those who believe that the Apothecaries' Societies have fulfilled their functions and should be allowed to retire as licensing medical authorities, but it is only just to them to admit that the cheap doctoring system has been developed since the monopoly of the Apothecaries' Society was abolished by the Medical Act of 1858. Not to dwell on this point, we will next observe that we see nothing essentially degrading or undignified in a medical man supplying good and well prepared drugs to his patients. If the medical calling were like the legal one, in which only comparatively few and wealthy people are concerned, we might concur in demanding with our correspondent that no doctor should soil his hands with drugs. If all the members of the profession could travel the world over and study to find where the profession attains the highest social condition the case would be different. Such is not the happy lot of the bulk of the members of the medical profession. They have to work very hard and for very inadequate sums. Where the poor are not attended gratuitously in dispensaries, as to a large extent is the case in Edinburgh, and in England too, or in Poor-law dispensaries, as in Ireland, they have to be attended on very moderate terms. And it is to the credit of English medicine that a large number of medical men have, up to very recent times, been able to attend the working classes at such terms without loss of dignity to themselves and with advantage to their patients. This is urgent work. The woman in labour and the child with scarlet fever or with scrofula, both parts of a household that has to be kept on 30s. a week, are pressing facts. Such people will never require a barrister. They must have a doctor. Our correspondent may have heard a proverb, "You cannot get breeks of a Highlandman." This is true. It is equally

true that you cannot get from a man with 30s. a week payment for a doctor and a chemist. The least experience of medical practice among the working classes and the humbler trading classes will satisfy anyone of this. So much is this difficulty felt that some of those who are pressed with the problem of securing medical attendance for the poor recommend the creation of a lower grade of medical practitioners than any now existing. We strongly deprecate such a proposal. But the way to bring it about is to speak disparagingly of medical men who are not blessed with degrees, and who dispense their own medicines. We admit that theoretically we should like to see dispensing by medical men abolished. Wherever reasonable chemists can be found, this will be largely practicable in the better ranks of practice. We should also like to see every English workman treat his children daily to animal food, with a chicken once a week. But at present we do not live in Utopia. The medical profession must adapt itself to human society. We have no excuse to offer for false and sham dispensaries, *et hoc genus omne;* but for honest attempts to meet all the medical wants of working and poor people we have nothing but respect, and see no more discredit in supplying them with the drugs they need than in supplying them with the splints or the bandages they may require.

"M.D. Edin." thinks all compounding and dispensing on the part of medical men might be seriously discouraged by a meeting of non-dispensing members of the profession. Another correspondent, whose letter we have not room for, avers that nothing but compulsion will suffice to prevent members of the profession dispensing on the one hand, or chemists prescribing over the counter on the other. Has the latter gentleman considered the probability of getting any possible Parliament in England to consent to the legislation involved in such compulsion?

IT is a matter for regret to find that scurvy is again on the increase in the British mercantile marine. The returns of the Seamen's Hospital, Greenwich, show that in 1873 there were 7 cases of scurvy admitted; in 1874, 18; whilst in 1880 and 1881 the numbers rose to 45 and 37 respectively. The cases reported by the Board of Trade for the whole kingdom have risen from 19 in 1874 to 99 for 1881. This, in the face of the statutory enactment as to lime-juice, by which the issue of this antiscorbutic is made obligatory, is most discouraging, and if we were not aware of certain circumstances which may tend to explain this increase of the disease, our faith in the prophylactic virtue of lime-juice might be somewhat shaken. There are certain points, however, which we think account for the recent increase of scurvy among the sailors of our mercantile marine—an important one being that owing to the great increase in the number of steamships employed in our purely mercantile trade, the character of the sailing vessels, which as a class alone furnish cases of scurvy, have considerably deteriorated. The owners are too frequently merely speculative adventurers, and the crew as often the dregs of the port, who have been unable to secure employment in the leading lines. Another point is that some owners of vessels place too much reliance on lime-juice, to the neglect of varied food scales. When the voyage is a protracted one, in addition to the daily issue of lime-juice, fresh messes should be served out at least twice a week. This is a precaution but rarely observed in the class of vessels we have alluded to. A great deficiency in the Merchant Shipping Acts is that they do not in any way prescribe the quantity or sort of food to be supplied to seamen on board British merchant ships, the food scale being a matter of contract between the master and the seaman for each voyage. This ought not to be permitted, and the sailor should be protected from any shortcomings to which his ignorance or the rapacity of the ship-owner may expose him. Dr. SPOONER, of Liverpool, at the instance of the Board of Trade, has drawn up an improved victualling scale of the provisions to be served out to a crew per day, in addition to the issue of lime-juice and sugar, and which might be advantageously made compulsory on all ship-owners. Dr. SPOONER gives preserved fresh meats three days a week, salt pork and salt beef two days in the week respectively, two ounces of preserved potatoes four times a week, eight ounces of preserved carrots three times a week, besides one pound of marmalade and four ounces of pickles weekly. This is the most rational dietary that can be obtained under the circumstances, and places the sailor under nearly as favourable dietetic conditions as the soldier; certainly, as far as the alkaline bases—the withdrawal of which is supposed to be one of the chief factors in the production of scurvy—are concerned. With regard to this point, it is interesting to quote the results obtained by Dr. RALFE in the comparison of the composition of the sailor's and soldier's diet respectively. He found that, whilst the total inorganic constituents of the sailor's diet exceeded those of the soldier's, the actual alkalinity of the ash was nearly half that yielded by the soldier's food.

THE insanitary condition of the Melbourne Hospital, and the marked prevalence of septic diseases among the surgical patients, have lately excited so much attention in the colony that a committee was appointed by the Board of Management to inquire into and report upon the best means of improving the sanitary condition of the hospital, either by removing the site, by reconstructing portions of the present buildings, or otherwise. The committee appears to have conducted its investigation with great care, and examined a large number of witnesses. Their report, which has been formally endorsed by the Board of Management, is now before us in the pages of the *Australian Medical Journal*. The committee rejects the proposal to move the hospital to another site as unnecessary, and, at any rate, premature. It sketches several important structural alterations which should be made "whenever funds are available." Then follows the important part of the report, to which we wish to draw attention. It may be summarised in these two quotations:—"An examination of the evidence tendered by the witnesses, and of that extracted from recent medical works which have been laid before the Committee, convinces that body that the lamentably high rate of mortality in cases of surgical fever.....is traceable beyond doubt to the imperfect adoption of a strictly antiseptic treatment, on Mr. LISTER'S principles, of surgical cases." "The Committee trust that this important subject will receive the early and serious consideration of the honorary staff. The splendid results which have attended the treatment of

ovariotomy in this hospital, and of all kinds of surgical wounds and injuries in the hospitals of Europe, convince the Committee that in the general and faithful introduction of Listerian antiseptics, the Committee of Management may look with confidence to a great saving of life in the hospital, and to the lasting riddance of erysipelas and blood-poisoning generally." One piece of evidence which evidently had considerable weight with the Committee is the following:—"Until strict antiseptic precautions were taken in performing operations for ovariotomy every case terminated fatally; but since the introduction of strict antiseptic treatment, there have been thirteen consecutive operations by two surgeons without a single death."

In thus suggesting to the medical staff the best treatment to pursue, the Committee have taken a step of which we cannot approve in principle. Laymen are not capable of judging accurately of the value of therapeutical means, and medical men may fairly demand perfect liberty of action in this respect. No body of honourable men would serve in a hospital if they were to be hampered and restricted in their treatment by a committee of laymen. It is easy to see what disastrous results would of necessity ensue, were such interference tolerated. But not even this sound principle is safely pushed to extreme limits. There are cases in which a lay committee may rightly interfere, and is in duty bound to do so. If lives are sacrificed in obedience to some prejudice and in direct defiance of well-established scientific facts, the authorities of a hospital, who are responsible for its proper management, have an undoubted right to interpose. And the real question in this case comes to be, whether the facts on which Mr. LISTER'S treatment are founded, and its results, are so well established and so undoubted, that they may be fairly judged of by a body of laymen. We are aware that many eminent surgeons of our own country would state that they are not, and that an investigation of them by the lay committee of a hospital is *ultra vires*. But, whatever views we may hold on that subject, we must not lose sight of the really practical point, which is, that any committee appointed to consider in what way the sanitary condition of a surgical hospital in which septic diseases are rife may be improved is bound to investigate the results of the aseptic treatment. And with the evidence on this subject which can now be adduced, to what result can such an investigation, if impartial, lead, than that this plan is the only really trustworthy one for abolishing septic disease? The most approved hospital construction, the most ample ventilation, the greatest care in the selection of cases, and other modes of dressing carefully carried out, have been able greatly to reduce the prevalence of septic disease; but aseptic surgery, or Listerism alone and by itself, has, in every instance in which it has been faithfully followed out, succeeded in abolishing all septic diseases. Facts are stubborn things, and this statement does not go beyond the facts. So strong is the case for aseptic surgery, that any surgeon who has to combat septic diseases is without excuse if he neglect to avail himself of it. Surgeons must then be beforehand with their committees. It is for them to be fully acquainted with every advance of their art, and on the alert to adopt any well-planned and successful improvement. In all matters of hospital sanitation committees of management should receive the initiative from the staff. If this question has arisen in the Antipodes to-day, to-morrow it may crop up in this country, and it behoves any surgeon to possess himself of the most authentic facts, and to act upon the knowledge so gained. We therefore rather regret the necessity for the decision of the Committee, than disapprove of the actual report adopted.

We trust that whatever feelings this report may have awakened—and of this we know nothing—the staff will see to it that the aseptic treatment is given the fairest possible chance. It is their manifest duty to carry it out in full detail with the utmost precision, and we cannot believe that there will be any backwardness in doing this. The alternative is to incur a responsibility which no conscientious man would willingly bear.

Annotations.

"Ne quid nimis."

THE MEDICAL STAFF IN EGYPT.

THE officers whose names we published last week, as being likely to form the administrative medical staff of the troops sent to Egypt, have received their appointments; and we are glad to observe that the Principal Medical Officer, Mr. Hanbury, is to have the local rank of Surgeon-General. An important addition has been made to the staff, in accordance with the principles laid down in the Report of Lord Herbert's Commission, by the appointment of a Sanitary Officer to the force; and for this responsible post Brigade Surgeon J. Marston has been selected, with the local rank of Deputy Surgeon-General. We believe that it would be impossible to find an officer so well qualified in every respect for this special service. Dr. Marston possesses a thorough knowledge of the principles of sanitary science. He had several years of official experience at the Army Medical Board during the time when the sanitary branch was being more fully developed. He has since passed four years in India at the head-quarters of the Army, and upon him devolved the principal part of the duty of laying down the sanitary rules for the European force which served with so much distinction in Afghanistan. The papers which he drew up for the Principal Medical Officer's report on the subject of Enteric Fever in India afford unmistakable evidence of high powers of investigation and of an intimate knowledge of the subject of which he treated. He has also shown himself well qualified for the not unfrequently very difficult task of working harmoniously with the officers of his own and other departments with whom in the course of duty he may be brought in contact. The selection of the officers for the administrative posts of the Medical Service in Egypt reflects great credit upon the new Director-General, and may, we trust, be taken as foreshadowing the manner in which the Department will be conducted during his period of office.

Eight field hospitals are to be sent out with the force, each provided with camp equipment, stores, &c., for 200 beds. The staff will consist of a brigade surgeon or senior surgeon-major in charge, six executive medical officers, one quartermaster, and the requisite Army Hospital Corps establishment for each hospital. It is intended also to form two general hospitals, one at Cyprus for 400 sick, and the other at Malta for 200 sick and wounded. These will, of course, be provided with the requisite staff and equipment. Two hospital ships are being fitted out to accommodate about a hundred sick each, with staff and every requisite, and it is hoped they will be ready to accom-

pany the expedition. So far as we have been able to learn, the preparations of the Medical Department appear to have been well considered and promptly carried out, and there seems every reason to hope that nothing will be wanting to ensure the comfort and well-being of the sick and wounded on the present occasion. The first field hospital (stationary) left Portsmouth on Thursday, the 27th, in the s.s. *Dacca*. The hospital is equipped with beds and material for 200 patients, water carts, pharmacy waggons, and light ambulances accompanying it. Three ice machines are being despatched to Egypt for the use of the hospitals. It is expected that the second field hospital and 1st Bearer Company will embark in a few days.

THE THAMES POLLUTION COMMISSION.

THE Royal Commission recently appointed to inquire into the fouling of the Thames by the sewage of London is already at work. Several witnesses have been examined, and others will be called before the adjournment which will ere long be necessary. We are heartily glad to hear that the Corporation of London intend to take into their own hands the defence of their river. They saved Epping Forest; now let them save the Thames, and they will a second time earn public gratitude. The tenacity with which the Metropolitan Board of Works cling to the filthy pollution over which they preside is quite remarkable. But, though powerful, they are not omnipotent; and if the City really exerts itself, they are, we think, sure to have to submit. We will not at the present time enter into the scientific and social questions involved, but will content ourselves with once more reminding our readers of the gravity of the nuisance. Few persons know how bad it is. Let anyone who doubts take a boat to Barking Creek during ebb tide, and watch and smell the foul stream of mixed solids and fluids which pours from the outfall. No filtration of any kind is attempted, and we believe that none would be successful. People often talk as though London sewage was a more or less clear liquid. Let them go to Barking—that is all we ask. Let them remember, moreover, that the sewage which falls into the river towards the end of the ebb is carried by the flood tide up the river far beyond the outfall.

SUMMER AT LAST.

IT is confessedly rash to hazard a word of congratulation on the momentarily seeming arrival of summer at last. Before anything we may now write can reach our readers it may be wholly falsified by the vicissitudes of a climate which must emphatically be described as one of ceaseless change. We seldom have two days alike, or even a day which is seasonable throughout. Whatever the meteorologists may have to say on the subject, it is a matter of fact and experience that the weather was not as variable forty or fifty years ago as it is now. During the winter which has just passed—if, indeed, we can be said to have had any winter—there was not a single snowstorm in London; and up to the present week neither spring nor summer has produced a day wholly characteristic. We do not sufficiently recognise the part this changeful element in the climate of England plays in the production of the many ailments to which its inhabitants are exposed. The public records of death from *assigned* causes throw little light and have no direct bearing on the multitude of minor illnesses from which people do not die, but by reason of which their lives are often made extremely miserable. The surprisingly large increase in the comparative frequency of troubles affecting the mental and nervous system of late years is doubtless in large measure due to the incessant and almost instantaneous changes which take place in temperature, atmospheric pressure, and hygrometric and electric conditions. These variations call for a power of resistance in the organism which is not so commonly found as it used to be when the habits of life were less exacting to what may be termed the *sensibilities*. Culture and civilisation, with the aid of wondrously contrived appliances of a luxurious life, have rendered us more "delicate" in our feelings, sympathies, and constitutions than we used to be. A very small and rapidly decreasing class of the population can be now characterised as robust. Refinement has, so to say, fined us down, and made us more susceptible of external influences than our grandfathers and grandmothers. It is, therefore, only natural that affections which are the result of impressions produced through the senses, or more directly on the nervous system, should increase, and that "feelings" should play a peculiarly prominent, and actually important, part in the formulation of disease. It is not, of course, possible to eliminate this element from the evil with which we have professionally to deal; but it is well that its existence should be recognised. Probably there never was a time when simple vaso-motor disturbances were so common, so seemingly causeless, and yet so mischief-making as now. It may be worth while to devote more attention to this particular trouble than we are wont to bestow on it. It is quite within the range of physiological probability that even grave pathological changes may take their rise in small, and apparently unimportant, departures from the normal habits of organic life.

VACCINATION IN SCOTLAND.

WHENEVER the protective power of vaccination is discussed we are liable to have Scotland pointed to as an example of what good results may be brought about by an intelligent and loyal people's faithful submission to the vaccination laws. As was recently shown by Dr. Carpenter, the proportion of unvaccinated people in Scotland must now be exceedingly small. The mortality from small-pox has been of late scarcely appreciable, prosecutions under the Compulsory Vaccination Acts are almost unknown, and it is likely that the northern portion of the kingdom will be able to guard itself in the future against such an epidemic as occurred in 1870 and the immediately succeeding years. Even the few fatal cases which have of late been recorded were—at least in several instances—direct importations from London or the Continent; the patients arriving either as sailors or tourists, with the disease fully developed. Small-pox may therefore be considered as stamped out of Scotland for the past few years, and it would appear unnecessary to do more than congratulate the authorities and the profession upon the success of their measures. We are not sure, however, that a word of warning is not more appropriate. There are several particulars regarding both the law and the practice in which Scotland is certainly behind her southern sister, and these imperfections are so marked that attempts at their removal would be more satisfactory than the present complacency. In the first place no child need be vaccinated before it is six months old—as a matter of fact the vast majority remain unvaccinated till close upon this period,—many escape altogether through removal from the registrar's district, and the system of inspection, or the authority of local administrators, is so lax that a large number of the children are unvaccinated till they reach the age of nine to twelve months. By allowing the child to reach the period when teething occurs and skin eruptions are apt to appear, risks are added which often give rise to a prejudice against either vaccination or the vaccinator, and which need not otherwise be run. The inspection of vaccination results is much less attended to than in England, and the absence of Government grants for special success is much felt, as well as the gratuitous service so often necessary when the fees must be paid either by the

patients or by the parochial boards—the latter in the case of paupers only. It may also be remarked that at present there is no Scottish source of supply for calf-lymph; and it is well known how the probability of success with this is diminished by its being stored for a length of time before use. In truth the lymph in general use is thoroughly humanised, and if to this is added the equally notorious fact that the vast majority of children are vaccinated in but two places—many have but one satisfactory mark,—we have reason to fear that any considerable outbreak would prove that the Scottish people had been but living in a fool's paradise. Parents, especially among the working classes, invariably regard one or two marks as sufficient, and under the present system no inducement is offered to the medical man to insist upon more. It might not be advisable to institute any considerable change, and we are not sure that the appointment of public vaccinators, as in England, would be acceptable to the profession; but a Government supply of lymph might be offered, more systematic and close inspection instituted, and payment by results established. Effectual protection in the face of a virulent epidemic cannot be anticipated unless the vaccination is not only as regularly, but much more thoroughly, performed than it is at present.

RECOVERY FROM RABIES.

ON more than one ground the possibility of the recovery of dogs from attacks of rabies is of great importance. The demonstration that this terrible disease is not invariably fatal, even in the animals most prone to it, may at least be welcomed as affording a ray of hope for therapeutics, while the fact of the recovery of affected animals may afford an explanation of many mysterious outbreaks of the disease. M. Decroix lately communicated to the Académie de Médecine nine cases which he had collected of well-authenticated recovery from rabies. (1) M. Ménecier inoculated two dogs and a rabbit with the saliva of a rabid dog; all three died from rabies, but the dog from which the saliva was obtained recovered. (2) Decroix inoculated a dog with the saliva of one suffering from rabies; the latter died, the former became affected with characteristic rabies and recovered. (3) Some saliva was obtained from a man some hours before he died from hydrophobia, and with it a dog was inoculated; the animal presented well-marked symptoms, but recovered. (4) Reg of Lyons recorded the recovery of a dog with furious rabies, due to a bite from another rabid animal. (5) A military veterinary surgeon, Laquerrière, has recorded the case of a dog affected in consequence of a bite from an animal unquestionably rabid. The destruction of the dog was ordered, but the owner refused to consent and the dog recovered without treatment. The four remaining cases were of recovery from rabies, in man in three cases, and in the horse in the last. Decroix points out that in furious rabies the attacks increase in frequency and intensity during two or three days, then attain their maximum, and disappear in two or three days more, whereas death does not occur until the fifth or sixth day. The eminent authorities who have never met with an instance of recovery are scarcely justified in denying the occurrence of such cases described by those practitioners who have seen them. The Rabies Committee, of which M. Decroix was president, has made, since 1874, a host of experiments with various substances of reputed value in rabies, three of them with pilocarpine, and every supposed remedy which they employed appeared actually to hasten death by the violent paroxysms which it caused. The conclusions of M. Decroix are that it is experimentally demonstrated that rabies may terminate in spontaneous recovery. Up to the present day no agent has made good its claim as a remedy for rabies. The cases of recovery attributed to this or that agent may be, with equal justice, ascribed to the spontaneous termination of the disease. The dogs which recovered in the experiments carried on by the committee were left at rest, and, since the administration of medicines usually provokes convulsive seizures, it seems desirable, according to our present knowledge, to leave persons affected with hydrophobia in the most perfect possible calm, trying experiments only upon animals. In absolute quietude and obscurity the paroxysms are far less terrible than when medicines are administered, and M. Decroix asserts that if these conditions could be secured, he would far rather suffer from hydrophobia than from many other diseases. It may, however, be observed that we are scarcely justified in drawing, from the superior results of therapeutic inactivity in dogs, the same lesson in the case of the disease in man. The administration of a drug to the human sufferer by the skin or rectum, or sometimes even by the mouth, may be effected with far less disturbance than in the case of the dog. Without doubt, however, he is correct in insisting on the absolute importance of perfect tranquillity, and of the avoidance of everything which may in any degree help to excite the paroxysms. It may be doubted also whether dogs are the best subjects for therapeutic experiments, since it is probable that the conditions met with in the human subject obtain more closely in the herbivora than in the carnivora. It is very desirable, in the case of any recovery from rabies, that it should be ascertained at what date the saliva ceases to be infectious, and whether the disease can be communicated after the animal has to all appearance recovered. This is a not improbable explanation of the occasional alleged occurrence of the disease from the bite of healthy animals.

PROF. CRUM-BROWN ON RIVER POLLUTION.

IN connexion with an action now pending in the Court of Session, with regard to the pollution of the rivers Gala and Tweed, by the manufacturers of Galashiels, a very interesting report has been presented by Professor Crum-Brown of Edinburgh. The document is a lengthy one, and the following is but a brief abstract, more especially of Dr. Crum-Brown's conclusions. He finds that at some of the mills there is no dyeing, but in most of them the common discharge is exhausted dye liquor and soapy liquid from wool, piece, and yarn scouring. At the mills where there is no dyeing the discharge is simply soapy liquid from scouring. In the various works some or all of the following methods for the prevention of pollution are at work—(*a*) The soapy liquid is used over again for scouring, after the removal of solid matter in suspension by settling in tanks. (*b*) Wood chips, &c., are to a very great extent caught in metal screens perforated with small holes. (*c*) Settling ponds, of varying size and number, are in use, through which the mixed liquids flow before entering the Gala. (*d*) The chemical treatment in greatest use consists of the application of the "Magina process" to the soapy waste. It will thus be seen that it is the residual soluble substance which most requires to be dealt with, as, notwithstanding the "Magina" process, fatty and oily acids, soluble nitrogenous and animal matter, and free sulphuric acid are found in the effluent water. Dr. Brown states that these may be completely removed by the use in the proper proportion of the following four substances—"Lime-water, sulphate of iron, sulphate of alumina, and sulphuric acid. It may appear at first strange that I should recommend the use of four substances, no one of which could be put into the stream without injury; but these substances act so on the polluting matters in the discharge from the mills and on each other, that these polluting matters and the great part of the added chemicals are precipitated as a sludge which can be removed by settlement and filtration, leaving in the effluent water very little from the impurities, and nothing from the added chemicals except some sulphate of

soda and sulphate of lime, substances which occur in most natural waters, and which cannot, in the quantities thus produced, be considered injurious to the water." For economic reasons, Dr. Brown recommends that the various proprietors should carry out a conjoint scheme for the purification of their refuse water. Several of these measures are in use where sewage only is the cause of the pollution; and the whole report should be carefully read by anyone interested in river pollution, from whatever source arising.

FRANK MAITLAND BALFOUR.

THE daily press contained on the 24th inst. a brief notice of the death of a man who can ill be spared at the present time. Mr. Frank Maitland Balfour was killed by a fall in the Alps, but no particulars appear to have been obtained save the fact that his body, along with that of his Swiss guide, have been discovered on the Italian side of Mont Blanc. It is only a few months ago that Mr. Balfour was elected Professor of Animal Morphology at Cambridge, after having passed through a distinguished University career; and it will be difficult to supply his place. His treatise on Embryology, together with his previous work on that subject, placed him in the front rank of investigators in that very special and difficult line of research. If his life had been spared there can be no doubt he would have added largely to our present knowledge of many points that still remain obscure. He was placed second in the first class in the National Science Tripos, in 1873 graduated B.A., and proceeded in due course to M.A. He was elected to the Fellowship at Trinity, was Royal Medalist in 1881, and President of the Cambridge Physiological Society. He was hon. LL.D. of Glasgow and a Fellow of the Royal Society. He was a younger brother of Mr. Arthur Balfour, the Member for Hertford, and nephew of the Marquis of Salisbury. His age was a little over thirty years.

PURIFIED TOW FOR ANTISEPTIC DRESSINGS.

MM. WEBER and THOMAS, of the French army, assert that the desiderata of an antiseptic dressing for military surgeons are—(1) absolute purity; (2) perfect whiteness and cleanness; (3) elasticity, smoothness, and softness; (4) great absorbent power, both of secretions from wounds and of antiseptic agents; it should (5) efficiently filter the air; (6) be antiseptic; and (7) cheap. They assert that they have prepared some purified tow which answers all these requirements thoroughly. Commercial tow is dirty, harsh from the presence of much woody fibre, and non-absorbent. This commercial tow is first dusted and tied tolerably firmly in packets, which are then soaked in water for twenty-four hours; they are then wrung out and placed in cast-iron pans, and a solution of caustic soda is poured on and kept just boiling for half an hour. The tow is then put into cold water and repeatedly washed until it has no action on turmeric paper. Subsequently it is immersed for half an hour in a solution of hypochlorite of soda, and again washed in cold water as before. After soaking for twenty-four hours in cold water the latter is pressed out and the tow is plunged into dilute hydrochloric acid and left for half an hour, after which it is again washed in water and allowed to soak for twenty-four hours and then dried, after which it is carded in sheets or pledgets, or combed. Tow thus prepared is stated to be chemically pure, of perfect whiteness, soft, very elastic, readily absorbent, easily impregnable with antiseptics, and cheap. To render it thoroughly aseptic it may be impregnated with either carbolic acid or iodine. For the former a solution of three parts of the acid in two parts of alcohol is sprinkled on sheets of filter paper, and these are laid between sheets of the tow and placed in a closed box. At the end of forty-eight hours the acid has all passed into the tow, in which it can be demonstrated under a microscope in the form of minute drops. MM. Weber and Thomas have prepared the carbolised tow of a strength of ten per cent., which they state to be an unirritating dressing and more than sufficiently strong of the acid for surgical purposes. To impregnate the tow with iodine they expose it to the vapour until it assumes the colour of roasted coffee. By similar means creasote, eucalyptus, &c., may be added to the tow. They state that, prepared in moderate quantities, the purified tow costs 1½ fr. to 1⅔ fr. per kilo, or when carbolised 2 fr. to 2½ fr. per kilo.

SEWAGE, STORM-WATER, AND THE VENTILATION OF SEWERS.

IT is only natural, but it seems strange, to find precisely the same questions cropping up and being discussed upon the same lines and with very nearly the same detailed arguments which were rife five-and-thirty years ago. History repeats itself, in regard to social and domestic matters, at recurrent periods of about thirty or forty years, probably because that is something like the lifetime of a generation. However this may be, it is certain that those interested in sewerage were discussing the need and policy of separating storm-water from the sewage at the date to which we have alluded; and it is within recollection that the same opinions and allegations were used then as now. The chief difference is as to the amount of the extraneous water introduced into the sewers. Thirty years ago the supply of water for domestic purposes was less per head of the population than it is now; and it may be assumed that the total dilution of the sewage is greater than it used to be. This is the real difficulty as regards all systems of sewerage. It would be comparatively easy to dispose of the semi-solid material if only such quantities of water were added as might be required to flush the drains. We are glad to see that the sewerage of Slough, Bucks, has been reconstructed on the fundamental principle of keeping the surface and storm water apart. Although this question has come to be regarded chiefly in relation to the utilisation of sewage, it is really one of practical drainage, and ought to be so treated. We are also gratified to find that the system of ventilation by shafts is beginning to receive the attention it deserves. The Sanitary Committee of Paddington district has the subject under notice, and is preparing to take action. We trust there will be no mistake as to the lamp-post scheme. Unless provision can be made for actually destroying the sewer-gas in the flame of the gas used for lighting purposes, as was proposed in America some years ago, it is not practicable to use the lamp-posts as ventilating shafts, however large the calibre of the pipes may be. Pipes affording a way of escape for the sewer-gas must needs be carried above the roofs of the houses, or it will simply poison the atmosphere at a high level, instead of rendering the air breathed by the population pure.

THE HOSPITAL SATURDAY FUND.

WE are glad to see notices of efforts to make the Hospital Saturday Fund more worthy of the working classes, on the one hand, and of the hospitals on the other. The most certain way of securing this is to realise that hitherto the result of the collection has been altogether inadequate. Mr. E. R. Cook, presiding at a meeting in Limehouse, said he saw no reason why the Fund should not reach £20,000 as against £8,500. To this end co-operation and organisation are necessary. What is above all necessary, it seems to us, is to organise a plan by which a working man could be induced to set apart a certain sum weekly for some time before the collection for this purpose.

TUBERCLE OF THE SYNOVIAL SHEATHS OF TENDONS.

MM. TERRIER and VERCHÈRE describe a tubercular disease of the synovial sheaths of tendons, which appears to be more common in the hand than any other part. The tubercular nature of the affection in the cases they report is demonstrated by the microscopical characters of the inflammatory growth and the concomitance of tubercular disease of the lungs. Premising that the disease may be secondary to tubercular affection of neighbouring bones and joints, they draw special attention to the form which occurs primarily in the synovial sheaths. They describe the origin of the affection as insidious, and the progress as very chronic. The first symptom is a swelling over part of a synovial sheath, as for example over the palmar surface of a phalanx. This swelling gradually grows and becomes softer, movement of the part then becomes both painful and limited. Other like swellings appear over other portions of the synovial membrane, as in the palm of the hand and above the wrist. The skin becomes adherent, reddened, and ultimately ulcerates, and pus and sero-pus are discharged; the ulcer extends, its edge being irregular, thin, undermined, and livid. A probe passed to the bottom of the ulcer readily finds a narrow opening into the sheath, along which it may be passed for some distance. The tendons do not slough, nor do they become firmly adherent. The disease does not spread to the neighbouring bones and joints; and although in its course more than one part of the synovial membrane is affected, these are separated by quite healthy portions of the membrane, and this fact forms one of the best diagnostic features by which it may be distinguished from fungous disease of the membrane, in which the whole extent of the sheath is always involved. In one of the two cases observed by the authors there was a very distinct history of an injury as the exciting cause: the patient, a young woman, had cut her wrist severely, and in another case there was a history of a bruise. The constant and rapid movements of the hand are considered to account for the great frequency of the disease there. The only treatment which promises any good seems to be early free removal of the tumours; cases in which this was done with good effect by Trélat and by Bouilly are recorded in the paper before us in the July number of the *Revue de Chirurgie*.

SMALL-POX AND MILK CARRIERS.

A CASE has come to light in Poplar which illustrates in a forcible manner a method by which small-pox may be spread through a community by the agency of milk. Four patients suffering from that disease were found in a dirty and deplorable condition in the house of a man who was employed in delivering milk. The disease had already prevailed for about five weeks, and the man, presumably in order that he might not be hindered from following his occupation, had avoided calling in any medical practitioner. During the whole of that period he had been in constant work, the fact of small-pox existing in his family being kept from his employer. Had a system for the compulsory notification of infectious diseases either by the occupier alone, or by the occupier and any medical practitioner, been in operation, the milkman could have been punished for having failed to comply with that provision. Whether he can be punished or not under the Dairies, Cowsheds, and Milkshops' Order, 1879, is somewhat doubtful. The order provides for the punishment of any cowkeeper, dairyman, purveyor of milk, or occupier of a milk store or milk shop, who has anything to do with the milking of cows, or the production, distribution, and storage of milk, if he have either suffered from or come into contact with infection, or for employing anyone thus liable to convey infection. But, in this instance, it is not clear whether the man delivering the milk can be deemed as coming within the definitions quoted, and it is certain that his employer had no grounds for suspending him from work. The Sanitary Committee have referred the case to their clerk to see whether a prosecution can be sustained against the milk carrier.

DEATH FROM CHLOROFORM.

MR. F. E. CANE, L.R.C.P. Ed., acting house-surgeon to the Bradford Infirmary, forwards to us the subjoined account of a death following the administration of chloroform at that institution:—

"George F——, aged fourteen, was admitted into the Bradford Infirmary on Wednesday, the 12th inst., suffering from the ordinary dislocation of both bones backward at the elbow, with fracture of the coronoid process. I saw him ten minutes after admission, and found him pale and trembling. He cried and asked me not to hurt him. On manipulating to ascertain the injury, he writhed and screamed so much that I considered it better to let him rest for some time to recover from the shock, and told him I would give him chloroform to lessen the pain. I accordingly went away, and returned in about twenty minutes. Finding him somewhat recovered, and considering his age in his favour, I asked Mr. W. J. Spence, resident dispensary surgeon, to administer the anæsthetic. His heart was examined and found normal, but slightly weak. He had had no food since his breakfast, which was light. The drug was administered by means of a simple inhaler, and the total quantity given at a time was one drachm and a half. The patient took it well, pulse and respiration remaining satisfactory. In about five minutes he seemed fairly under its influence, and I reduced the dislocation rapidly without trouble. The boy groaned and kicked as this was being done, and from that time no more chloroform was administered. The arm was put up in angular splints and bandaged. On the completion of the bandaging, the patient, who was spitting and beginning to recover, slightly raised his head from the sofa on which he was lying. In about ten minutes after this his breathing was prolonged and slow, and I noticed his face become deadly pale. I placed my hand over his heart, and could not perceive any impulse. I drew forward his jaw, and he took a full inspiration, the chest wall expanding. Mr. H. Meade, one of the honorary visiting surgeons, was in an adjoining room, and I had him promptly in attendance. The tongue was drawn forward with an artery forceps, cold water was dashed on the face and chest, the head was lowered still further, Silvester's artificial respirator was used, a strong battery applied, and ammonia held to the nostrils. All these means failed to restore the boy, who died about ten minutes after the chloroform had ceased to be administered, and about two minutes after the first symptoms were noticed. Artificial respiration was of course kept up for some time. An inquest was held, and a verdict returned in accordance with the medical testimony, the coroner not considering a post-mortem examination necessary."

NOTIFICATION OF DISEASE IN GREENOCK.

A DISCUSSION on the question of notification of disease in the Police Board, Greenock, gave occasion to Mr. McNaught to express some strange views of the duties of medical officers of health and of economy in public bodies. A Bill was under the notice of the Board, including a clause requiring, as we understand, a notification of infectious disease both by the householder and the doctor. Mr. McNaught was against the system of notification, and argued that it would operate so as to discourage the people from consulting a doctor in cases known to be infectious. But what we wish to note is his remarkable views of the duties of medical officers of health. "There was one thing

he should like to see in the Bill, and that was that the public health medical officer of this town should be prohibited from attending cases in the surgical wards of hospitals while infectious cases were under his care and treatment, and he thought he should attend all the infectious cases sent to the infirmary as being part of his duties, and thereby save about £50 a year to the Board. He did not think military hospitals would put up with the same treatment for a single day." What an autocrat Mr. McNaught must be, to think of dictating the conditions under which a medical officer of health should treat surgical diseases, and to require such officer to attend all the infectious cases sent to the infirmary *as part of his duties*, and thereby save the ratepayers about £50 a year!

LIGATURE OF THE INNOMINATE.

MR. WILLIAM THOMSON, of Dublin, favours us with an account of the termination of his case of ligature of the arteria innominata. "My patient," he says, "died on the 20th inst., the forty-second day after ligature of the innominate. There was no recurrence of bleeding after the thirty-ninth day. The sinus was found to terminate in an ulcer, which involved the anterior wall of the junction of the subclavian, carotid, and innominate arteries. The innominate and carotid arteries were filled with clot; the subclavian contained a clot occluding it to the extent of half an inch. The position of the ulcer was on the distal side of the ligature, the constricted portion of the innominate not being involved. The hæmorrhage had apparently taken place from the innominate, as there was a recent blood stain on the cardiac side of the clot. None of the vessels were pervious to water forced in with a syringe. The aorta was atheromatous. Consolidation was proceeding satisfactorily in the tumour. This is the second longest survival (except Smyth's case, which recovered) on record; Graefe's case having reached the sixty-seventh day, and Cooper's the thirty-fourth."

REGISTRATION OF DEATHS ACT, 1874: NEW AND IMPORTANT DECISION.

ON Tuesday, July 11th, at the Lambeth Police Court, before Mr. Chance, Charles Frederick Groom, M.R.C.S.E., was summoned at the instance of the Medical Alliance Association for wilfully making a false certificate, under or for the purposes of the Births and Deaths Registration Act, 1874, concerning the death of a child, named Mary Louise Sparks, on June 28th, 1882. Mr. C. J. C. Pridham, Solicitor to the Association, appeared for the prosecution, Mr. Mayo defended. It was proved at the hearing that the defendant had seen the child once and had made up a bottle of medicine for it. Mr. Chance, however, held that one solitary attendance did not amount to that degree of investigation and attendance of the patient's case which would justify the defendant in giving the usual form of death certificate under or for the purposes of the Act, which he had done. He therefore convicted the defendant of the offence charged, and fined him £2 and £2 2*s*. costs.

GASTROSTOMY.

ON Thursday, the 20th inst., at the Wolverhampton and Staffordshire General Hospital, Mr. Vincent Jackson performed the operation of gastrostomy. The patient, a middle-aged man, was suffering from cancer of the cardiac end of the œsophagus, and, in the opinion of Dr. Totherick, was fast sinking from starvation. The operation was divided into two stages, and on the fifth day after the first operation the stomach was linearly excised. Since he has been fed by the stomach and rectum, and everything is favourable. A full report of the case will shortly be published.

FATTY TUMOURS OF THE PALM OF THE HAND.

LIPOMA of the palm is an infrequent but important affection. The diagnosis is attended with difficulty, for the tumours are often fluctuating; and in this, as well as their slow and painless growth and rounded outline, and the fact that they sometimes extend under the annular ligament, they resemble cysts of the synovial sheaths. When punctured, however, they do not yield fluid, but, on the contrary, a small pellet of fat may be extruded, which makes the diagnosis certain. The treatment is excision; but this should not be lightly undertaken, as in the palm these tumours do not grow from the subcutaneous fatty tissue, but from the fat under the deep fascia or between the muscles. Indeed, it has been suggested that in some cases they are developed from processes of the synovial sheaths of the flexor tendons, and are comparable with the arborescent lipoma of the synovial membrane of the knee described by Billroth. Great care must be taken to secure union of the wound by first intention, or the apparently simple operation may be followed by extensive suppuration in the palm and adhesion of the flexor tendons, with the result of a more or less useless member.

"AN ODD EPIDEMIC."

A CORRESPONDENT in Norfolk draws our attention to what he terms "an odd epidemic" which has attacked a large number of his patients during the spring and early summer of this year. The affection has commenced with considerable prostation, nausea, and giddiness, accompanied with a state of nervous alarm and depression amounting almost to melancholia. The temperature has been normal, the pulse 100, soft, and the skin moist. After a day or two material improvement has taken place, and then within a week a relapse has occurred, at times accompanied by coryza, partial occlusion of the bronchial tubes, with clear, starchy mucus, the formation of sensitive sores about the margins of the nostrils, mouth, &c., pain in the intercostal muscles and the joints, loud buzzing sounds in the head, extreme sensitiveness of the scalp, and even cephalalgia. In some cases several relapses have occurred, the intervals of improvement increasing in duration as the affection gradually subsided. We are informed that groups of cases have been met with not only in Norfolk, but in Warwickshire and in London. If so, a brief reference to them, and, above all, a record of the circumstances with which they have been associated will be of interest.

SYPHILIS CONVEYED BY SKIN-GRAFTS.

ANOTHER case in which syphilis was conveyed by skin-grafts is reported in Paris by M. Féréol. It occurred in the practice of M. Deubel; the patient was a man, aged forty-nine, who had not had any venereal affection, and who had a large wound caused by erysipelas with sloughing. Seventy-five dermo-epidermic grafts were put on, nearly all of which "took" and cicatrisation was rapidly effected. A month after the application of the first grafts the cicatrix began to ulcerate in several places. Six weeks later an abundant roseolous eruption broke out over the body, and a month later mucous patches appeared in the mouth. One of the sons of the man, who had furnished grafts on each occasion, then consulted M. Deubel for mucous patches about the anus, and stated that eighteen months previously he had had a hard chancre for which he had not had any treatment. The case is apparently beyond all doubt, and shows the necessity for caution in the selection of persons from whom grafts are taken. The safest rule to follow is, wherever possible, to take the grafts from the person on whom they are to be implanted.

ROYAL UNITED HOSPITAL, BATH.

WE have received a copy of the Registrar's report of the Royal United Hospital, Bath, for the year 1881. It is very brief, but bears evidence to the amount of work done at this old-established hospital. The Registrar (Mr. Hopkins) has also made out a table of all the operations performed in the hospital since 1849, which may prove useful as a standard of comparison with the results obtained at the present day. Short notes of four deaths occurring from the administration of anæsthetics during the same period are also given. In one case the anæsthetic used was bichloride of methylene, and the patient, a man aged fifty, died when only a drachm had been given. In the other three cases chloroform was the agent. In one case the death resulted from shock, the operation having been commenced before anæsthesia was obtained. The report closes with notes on the museum, which was a pet of the late Mr. Gore, and nearly all the specimens in it were contributed by him. It contains many specimens of great interest, and it is to be hoped that it will be continually enriched by the addition of specimens which are always to be obtained at any large hospital.

MINERS' DISEASES.

THE morbid states, other than those of the lungs, which are produced in miners by the coal-dust to which they are exposed, have been recently studied by Dr. Fabre, of Commentry. He does not believe that the dust has any special action on the skin. The impetigo and eczema common among miners, and attributed by some authors to the influence of the dust, are not, he believes, due to this cause, but to the influence of water in the workings containing, dissolved, some irritant substance. These eruptions are never met with in the workers in coal at the surface, who are equally exposed to the influence of the dust. Almost all miners present characteristic bluish cicatrices, indelible as tattoo marks, which result from any wound produced by a fragment of coal. The dust in the air occasionally causes a certain amount of simple conjunctivitis, and very often true keratitis, sometimes accompanied by iritis, and frequently leading to ulceration of the cornea. These are due to the implantation in the cornea of small fragments of coal. Deafness is also common, and is due to a hard plug, composed of cerumen and coal-dust, in the external meatus, usually accompanied by some inflammation of the lining membrane.

AMONG the appointments that have recently been announced as having been made in the medical department of the University of the City of New York are the following:—Dr. William H. Thomson, Professor of Diseases of the Nervous System (in addition to the Professorship of Materia Medica and Therapeutics); Dr. Lewis A. Stimson, Professor of Surgical Pathology (instead of Pathological Anatomy); Dr. Stephen Smith, Professor of Clinical Surgery (instead of Orthopædic Surgery); Dr. Herman Knapp, Professor of Ophthalmology; Dr. F. R. S. Drake, Clinical Lecturer on Practice of Medicine; Dr. N. M. Shaffer, Clinical Lecturer on Orthopædic Surgery; Dr. Joseph E Winters, Clinical Lecturer on Diseases of Children (in addition to being Demonstrator of Anatomy); Dr. William C. Jarvis, Clinical Lecturer on Laryngology; and Dr. Lawrence Johnson, Lecturer on Medical Botany.

THE presence of small-pox in Cape Town is arousing the inhabitants to a sense of the value of vaccination. Mr. Frederick Ensor, District Surgeon, Port Elizabeth, has issued a public appeal, calling attention to the danger of neglecting the means of coping with the epidemic afforded by the operation.

AMONG the naval medical officers present at the bombardment of Alexandria was Fleet-Surgeon Henry Nanton Murray Sedgwick, of H.M.S. *Inflexible*. This distinguished officer is a son of the late Hon. Samuel Sedgwick, M.A., M.D. He entered the Royal Navy as Assistant Surgeon in 1862, became Surgeon in 1869, in which rank he served with distinction throughout the Abyssinian campaign under Lord Napier of Magdala, and was several times mentioned in despatches; for his services he received the war medal and the promotion to Staff Surgeon. In 1879 he was further promoted to the rank of Fleet Surgeon, and in the autumn of last year was appointed to the *Inflexible*, before which time Dr. Sedgwick was Senior Medical Officer in charge of H.M. training ship *St. Vincent*, stationed at Southsea.

A PROPOSITION has been made to establish a Society of Medical Men practising in the Western District of London. Circulars have been issued pretty extensively to solicit attendance at a meeting to be held on Friday (to-day), at 5 P.M., in the Board-room of the West London Hospital, when the matter will be discussed.

IN consequence of the prevalence of scarlet fever at West Moseley, Dr. Price Jones advised the closing of the school of the locality. The managers have, however, it is stated, declined to comply with this advice, on the ground that the number of cases existing in the village is not sufficient to justify that course.

IN the loss sustained by Mr. James Mackie, surgeon to H.M. Consulate at Alexandria, by the destruction of his house in that city, is included an almost unique collection of calculi, the result of twenty-two years' surgical work in the Deaconesses' Hospital; also his library and all his surgical apparatus.

THE seat left vacant in the section of Medical Physics and Chemistry of the Académie de Médecine by the death of M. Briquet has been filled by the election of M. Gariel, who received fifty-seven of the votes of the sixty-eight Academicians present.

WE understand that an etching of the portrait of Mr. Luther Holden, by Mr. Millais, has been executed by Mr. Miller, of Devonshire-street, Portland-place, and that a copy has been presented to each of the subscribers.

THE Board of Trade have received through the Secretary of State for Foreign Affairs a copy of a notice issued by the Portuguese Government declaring the ports of the Province of Rio de Janeiro free from yellow fever since the 16th ultimo.

M. FAUVEL relates an instance in which he found a bullet in the larynx ten years after it had entered the head.

THE Bradshawe Lecture will be delivered this year by Dr. Long Fox on Friday, August 18th. The subject will be "The Influence of the Sympathetic System on Disease."

LEDWICH SCHOOL OF MEDICINE, DUBLIN.—The following prizes have been awarded at the termination of the summer session:—Botany and Zoology: Shirley Roberts (1st); Samuel Horneck (2nd). Materia Medica: S. Finlay (1st); J. J. Bolger, F. W. Sullivan (equal). Practical Chemistry: J. H. Griffin (1st); M. Leahy (2nd). Forensic Medicine: T. Williams (1st); W. Fryer, G. Wood (certificates). Midwifery: E. Wynne (1st); W. Fryer (2nd).

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Gloucestershire Combined District.—The annual report on the sanitary condition of the district to which Dr. Bond acts as medical officer of health must be of interest, if for no other reason, because of the magnitude of the area dealt with. It includes five urban and eight rural districts, covering in all some 620 square miles, and having at the census of 1881 a population of 123,333. When it is found that in a district of this character there has been for eight years a decline in the prevalence of zymotic diseases, broken only by one single rebound, and that whereas in 1874 as many as 301 deaths were registered from such diseases, as opposed to 152 in 1881, there are certainly grounds for assuming that the sanitary supervision to which the district has been subjected during those years has exercised a very decided influence for good, and that the cost of the sanitary measures which have been adopted has by no means been thrown away. Indeed, we concur with Dr. Bond in the opinion that the result affords a very tangible proof that the expenditure of the ratepayers has borne solid fruit in protecting the health and adding to the comfort of the community, and that it has hence been a true measure of economy. The continued fevers are of all diseases those which are most influenced by the adoption of an efficient sanitary administration, and we note that whereas in the four years 1874–77 there were 168 deaths from this form of fever, nearly all the cases being of the enteric type, only 106 occurred in the period 1878–81; and not only so, but an almost steady diminution in the annual number registered has gone on from 57 in 1875 to 17 in 1881. Much the same holds good as regards diarrhœa. The views which are expressed by Dr. Bond in many portions of his report as to the possible identity of diseases which he groups under the name of "scarlatinoid," though by no means new, are still in advance of those held by many of his co-workers. He knows of no line of demarcation by which scarlatina, croup, and diphtheria can, even theoretically, be separated from one another, and he is of opinion that whilst scarlatina shades off into the diphtheritic group of affections on one side, it tends equally, on the other, to pass insensibly into measles. He also considers that cases are becoming increasingly frequent in which the so-called scarlatinoid poison affects a weakly patient with low powers of resistance, and that because of the patient's physical condition it concentrates itself on the throat and gives rise to conditions analogous to, if not identical with, those of diphtheria. The localisation of the symptoms as here described has often been observed in genuine scarlet fever, which has given rise by infection to other cases where the characteristic skin eruption predominated, and we fear that many possible sources of error must be removed before even a large group of such cases can be regarded as determining a question as to the identity or not of the poisons under consideration. So great are the difficulties, however, in fully understanding the relation which sore-throat bears to diphtheria or to scarlatina, that we feel convinced Dr. Bond is right in instructing teachers in elementary schools to regard all cases of sore-throat as infectious, and to refuse readmission to any scholars who may have suffered from scarlatina until all evidence of throat mischief has absolutely disappeared. A history of the spread of enteric fever in Westbury-on-Severn is worthy of notice. The disease was imported by a young man who was "boots" at one of the leading hotels in Gloucester; and Dr. Bond satisfied himself that it was due to faulty sanitary conditions which were easily detected. Up to that date they had, however, remained unremedied; and this although one, if not two, of the previous holders of the young man's office had suffered and died from what was believed to have been enteric fever. Use is made of this history to refer to the sanitary condition of hotels generally, and to the condition of helplessness in which the public are placed in the matter. They certainly have a right to be as much protected when lodging in an hotel as when occupying a common lodging-house or houses let in lodgings. Provision is made by by-laws and otherwise as regards the two latter class of houses; but the hotels, which are, after all, only large lodging-houses, are free from all special sanitary control, and the public resorting to them have no guarantee as to their reasonable healthiness.

Buxton.—This urban district was remarkably free from fatal cases of any of the infectious fevers during 1881, and steady progress is being made in sanitary work. A curious case of typhoid fever is alleged as having occurred in a boy as the result of falling into an excavation containing long pent-up sewage. The data given do not suffice for the expression of a decided opinion as to the origin of the disease, but the period of incubation was apparently limited to one week. If this were so, the incubation stage was one of somewhat unusual brevity, and the question arises whether the history as related does not admit of the disease having been due to the inhalation of sewage emanations at a date preceding the fall in question.

Hackney.—From Dr. Tripe's report on the sanitary condition of the Hackney district, it appears that during the last ten years the increase in the population has amounted to 60,000, it having been nearly at the rate of 50 per cent. In July of last year it was estimated at 188,240, and amounted to 47·8 per acre, no allowance being made for 467 acres, including marshes and water which cannot be built on. On several occasions Dr. Tripe has referred to the injurious influence of the Homerton Small-pox Hospital upon that portion of his district lying within a certain area of that institution; and more extended observation entirely confirms the opinions he has previously expressed. On this occasion, however, Dr. Tripe says he is inclined to regard such injurious influence as practically inoperative provided a small-pox hospital is so situated with regard to site as to admit of an acre of land for every 25 patients under treatment, and a space of at least 150 feet between the wards and the walls surrounding the site; and also provided the number of patients massed together in one centre does not amount to more than 100. He also considers that the risk of the spread of infection to surrounding houses by aerial and other means increases with the increase of patients beyond the number stated. We assume that Dr. Tripe has had an opportunity of explaining his views on this subject before the Royal Commission on Infectious Hospitals, and we are inclined to look upon the remedial measures suggested by him as being in the direction in which action will have to be taken as regards the isolation of small-pox in London and other large towns. Dealing with the details of a local small-pox prevalence, Dr. Tripe brings forward statistics to show that the efficiency of primary vaccination tends to wear out at about the tenth year of life; and judging from the small-pox death-rates amongst the vaccinated, he considers that it is conclusively shown that the necessity for revaccination arises between the seventh and tenth years. Amongst many other interesting matters, Dr. Tripe explains why Hackney is so free from trades associated with the development of offensive effluvia. Persons proposing to establish manufactories which might be expected to evolve unpleasant and deleterious vapours are informed in advance that directly nuisance arises proceedings will be commenced against them, the result being that they transfer their business to other districts.

Tottenham (Urban).—In Dr. Watson's report upon the health of this suburban district during last year, he calls attention to the fact that its population, which was 22,869 in 1871, had more than doubled at the time of the last census, having become 46,441. The birth-rate among this population was equal to 41·5, whereas the death-rate did not exceed 16·8 per 1000. The death-rate did not vary materially from those which prevailed in the two preceding weeks, which were 16·5 and 17·6 per 1000 respectively. The deaths referred to the principal zymotic diseases were 131, or 17 per cent., of the total deaths, and were equal to a rate of 2·8 per 1000. This large proportion of zymotic diseases can scarcely

be deemed satisfactory; the fatality from these diseases was not due to the epidemic prevalence of any one disease, but included 34 from diarrhœa, 33 from whooping-cough, 22 from scarlet fever, 20 from diphtheria, 10 from measles, 10 from "fever," and 2 from small-pox. The fatal cases of diphtheria exceeded the number returned in any of the ten preceding years. Dr. Watson reports that Tottenham has now completely outgrown its sewerage system, which requires the urgent attention of the sanitary authority, and expresses the opinion that the adoption and completion of a thoroughly effectual drainage scheme would be followed by a marked diminution in the general and zymotic death-rates. It is noted that the causes of no fewer than 36 or nearly 5 per cent. of the deaths registered during the year were uncertified. The value of this report would be enhanced by a summary table showing a few of the more important features of the mortality statistics of Tottenham in a series of recent years.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5574 births and 3000 deaths were registered during the week ending the 22nd inst. The annual death-rate in these towns, which in the two preceding weeks had been equal to 18·4 and 19·2 per 1000, was last week 19·0. The lowest rates in these towns last week were 8·1 in Derby, 14·6 in Bradford, 15·1 in Bristol, and 16·1 in Birmingham. The rates in the other towns ranged upwards to 24·8 in Leicester, 25·0 in Sunderland, 26·4 in Bolton, and 30·4 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 569, showing a further increase of 33 upon recent weekly numbers; 281 resulted from diarrhœa, 102 from whooping-cough, 66 from measles, 57 from scarlet fever, 34 from "fever" (principally enteric), 20 from diphtheria, and 9 from small-pox. The lowest death-rates from these diseases occurred in Brighton and Plymouth, and the highest in Leicester and Preston. Whooping-cough caused the highest death-rates in Newcastle-upon-Tyne and Nottingham; scarlet fever in Sunderland and Hull; measles in Derby and Huddersfield; and "fever" in Portsmouth and Sunderland. The deaths referred to diarrhœa in the twenty-eight towns showed a further increase last week upon recent weekly numbers, but were considerably below the average for the season; the fatality of this disease was greatest in Preston and Leicester. The 20 deaths from diphtheria in the twenty-eight towns included 13 in London and 2 in Portsmouth. Four fatal cases of small-pox were recorded in London, 3 in Leeds, and one each in Manchester and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had declined in the thirteen preceding weeks from 350 to 204, further fell to 193 on Saturday last; 20 new cases of small-pox were admitted to these hospitals during last week, against 30 and 23 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 173 and 199 in the two preceding weeks, declined to 157 last week, and were 27 below the corrected average number in the corresponding week of the last ten years. The causes of 71, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Leicester, Bolton, and Huddersfield; whereas the proportions of uncertified deaths were largest in Halifax, Wolverhampton, Liverpool, Oldham, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 20·5 and 21·3 per 1000 in the two preceding weeks, further rose to 21·7 in the week ending the 22nd inst., which exceeded by 2·7 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 113 last week, showing a further slight increase upon recent weekly numbers; they included 60 from diarrhœa, 19 from measles, 16 from whooping-cough, 8 from scarlet fever, 2 from diphtheria, and one from small-pox. The death-rate from these principal zymotic diseases averaged 4·9 per 1000 in the eight towns, and was 1·4 above the mean rate from the same diseases in large English towns. The 60 fatal cases of diarrhœa showed a further increase upon recent weekly numbers, and exceeded by no fewer than 38 the number returned in the corresponding week of last year; 37 occurred in Glasgow, 6 in Paisley, and 5 both in Edinburgh and Leith. The annual death-rate from diarrhœa in the Scotch towns was last week nearly twice as high as that which prevailed in the English towns. The 19 fatal cases of measles were within one of the number in the previous week, and included 9 in Dundee, 4 in Leith, and 3 in Aberdeen; the 9 fatal cases in Dundee showed a decline of five from the number in the previous week. The 16 deaths from whooping-cough exceeded those of the previous week by 2, and included 7 in Glasgow, 4 in Edinburgh, and 3 in Aberdeen. Three of the 8 deaths from scarlet fever occurred in Glasgow, and two both in Paisley and Leith. The deaths referred to "fever" corresponded with the number in the previous week, and included 2 both in Glasgow and Leith. Both fatal cases of diphtheria were returned in Edinburgh; Dr. Littlejohn, the medical officer of health for the city, only reports, however, one death from this disease. The death from small-pox was recorded in Aberdeen, and was of a fisherman on board a French lugger. The deaths referred to acute diseases of the lungs in the eight towns, which had been 92 and 95 in the two previous weeks, declined to 80 last week, and exceeded by one the number attributed to these diseases in the corresponding week of last year.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the four preceding weeks had declined from 23·2 to 16·8 per 1000, rose again to 21·9 in the week ending the 22nd. During the first three weeks of the current quarter the death-rate in the city averaged 19·7 per 1000, against 17·7 in London and 19·1 in Edinburgh. The 146 deaths in Dublin last week showed an increase of 34 upon the exceptionally low number in the previous week, and included 7 which were referred to diarrhœa, one to scarlet fever, and not one either to small-pox, measles, diphtheria, whooping-cough, or "fever." Thus only 8 deaths resulted from these principal zymotic diseases, against 14 and 9 in the two previous weeks; these 8 deaths were equal to an annual rate of but 1·2 per 1000, against 3·3 in London and 2·9 in Edinburgh. The deaths attributed to diarrhœa, which had been 5 in each of the two preceding weeks, rose to 7 last week. The fatal case of scarlet fever raised the number recorded since the beginning of April to 8. Last week was the first since the beginning of the year in which no death from "fever" has been recorded within the city. The deaths of infants showed a further increase upon recent weekly numbers, while those of elderly persons were less numerous. The causes of 19 or more than 13 per cent. of deaths in the week were uncertified.

CENSUS REPORTS: COUNTY MONAGHAN.

The population last year was returned as 102,748, a number ten per cent. less than in 1871, when the total was 114,969. The number of persons receiving Poor-law relief in 1871 was 608, or 1 in every 189 of the population; in 1881 the number was 872, or 1 in every 118, of which 736 were indoor and 136 outdoor paupers. As regards the condition of elementary education, 51·1 per cent. could read and write, 18·1 read only, and 30·8 were wholly illiterate.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Benjamin Lane has been granted retired pay, with the honorary rank of Brigade Surgeon.

The Queen has approved of the retirement of Surgeon-Major George William Jameson, of the Bengal Army.

Surgeon-Major John Law, M.D., of the Madras Army, to be Brigade Surgeon.

RIFLE VOLUNTEERS.—Surgeon and Honorary Surgeon-Major Thomas Gray, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement.—14th Middlesex (Inns of Court): John H. Morgan, M.A., F.R.C.S., has been promoted Surgeon, vice Coulson, retired.—5th West

Riding of Yorkshire: Francis Henry Wood, Gent., to be Acting Surgeon.

ADMIRALTY.—The following appointments have been made: Fleet Surgeon Ingham Hanbury, to the medical charge of the Royal Marine Battalion in Ireland; Staff Surgeon Charles G. Wodsworth, to the *Thalia;* Staff Surgeons James H. Martin and Thomas Conry, to the *President;* Surgeon W. G. C. Smith, M.B., to the *Triton*, for temporary service; Surgeon William F. Spencer, to the *Thalia;* Surgeon H. M. Ellis, for service with the Marines in the *Dacca;* Surgeon Alfred H. Kelly, to the Royal Marine Artillery Division, vice Ellis; Surgeon Edmund D. Maddick, to the *Duke of Wellington;* Surgeon Arthur W. Russell, to the *Victor Emanuel;* Surgeon John A. MacMunn to Hong Kong Hospital (in charge).

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.

THE new building which has been in course of erection for the School of Medicine in connexion with the Royal Infirmary is now being rapidly completed, and will be ready for occupation in all departments at the commencement of the coming winter session. The anatomical section of the School is already occupied. The dissecting-room measures 70 ft. in length, 25 ft. in breadth, and is over 25 ft. in height. It has been constructed with particular regard to lighting and ventilation, and is fitted up and supplied with everything requisite for the convenience and comfort of the students. The building also contains lecture theatres and anatomical museums. The osteological room is fitted up as a private reading-room, and contains an ample supply of specimens. In the large dissecting-room are placed some fine frozen specimens of dissections illustrating most of the more important regions of the body; these are arranged in uniform circular glass jars, conveniently placed so as to allow them to be referred to by the students during the progress of their practical work. The south side of the building is occupied by the large, well lighted and ventilated chemical and physiological theatres and class-rooms for general instruction and experimentation, in which are all the modern instruments requisite for these special branches of study. The committee have also apportioned a large room for a general medical library, which will be used as a place of meeting of the Glasgow Royal Infirmary Medical Society.

Correspondence.

"Audi alteram partem."

DEATHS UNDER CHLOROFORM.

To the Editor of THE LANCET.

SIR,—Twenty years spent in the study of that protean disorder indigestion have taught me much in reference to the depth of sympathy that exists between heart and digestive organs.

One of my patients of former years, a muscular man of first-class pedestrian ability, invariably became the victim of faintness if he partook of veal-pie. Another exhibited the symptoms of angina pectoris if he took into his stomach food either excessive in quantity or unsuitable in character. A third, still frequently under treatment, becomes both faint and asthmatic after the imbibition of tea. Nevertheless, the individual referred to can pace the floor persistently whilst in the enjoyment of the—to him intense—luxury of a prolonged Turkish bath, heated to a high temperature. A lady patient suffers from faintness, followed by an attack of urticaria, after the eating of roast mutton, a dish of which she is particularly fond. Is this sympathy sufficiently reckoned, or guarded against, in the preparation of a patient for the inhalation of an anæsthetic? I fear not, Sir. As a fact, should not his diet be, when such a course is open to the surgeon, carefully supervised for two or three days previously to the administration of the drug? Every death that takes place during the administration of an anæsthetic not only causes honest men and good surgeons to be lightly spoken of, but also, and still more important, brings discredit upon surgery.

I shall be very glad if some of my professional brethren, the bent of whose studies has been parallel with my own, will give us the benefit of their opinion upon this all-important subject.

And now, Sir, if you please, permit me to indite a line in reference to the restoration of those whose lives hang upon a single hair in consequence of the inspiration of chloroform. A relative of my own suffered, when at about the age of twenty, from an attack of rheumatic fever coupled with valvular disease of the left side of the heart. At the approach of the critical seven-times-seven, acute rheumatism, this time associated with disease in the right side of the heart, again attacked him. Anasarca speedily set in, and the case assumed hopeless features. One morning about six o'clock, when I had been in close attendance upon him for several hours, sudden failure of the heart's action seized him. Fortunately, a supply of very hot water lay close at hand; I dipped a folded towel into the fluid, and laid it, after the least possible delay, upon the patient's chest. In a short time he revived. I quitted his side for ever that morning. His attendants had, however, learned their lesson. They repeated the application on the supervention of each subsequent faintness, the total result being that his life was prolonged for many days—until, in fact, an increase of anasarca rendered a continuance of existence impossible.

Why should not a fair trial be accorded to the hot-water plan of treatment in cases of anæsthesia threatening the extinction of the vital flame?

Yours faithfully,

Canterbury, July 26th, 1882. JOHN BEADNELL GILL, M.D.

"STAMPING OUT SMALL-POX."

To the Editor of THE LANCET.

SIR,—Under the above heading I notice in last week's LANCET a short account of the measures which are being adopted by the authorities at Leicester with a view of stamping out small-pox in that town, and as these measures appear to be somewhat similar to those adopted by the Government of New South Wales during the recent outbreak of small-pox in Sydney, where, as Special Government Medical Officer, I had very good opportunities of judging of their intrinsic value, I venture to make a few remarks upon the subject.

Vaccination not being compulsory in New South Wales, there existed a very large number of unvaccinated persons in Sydney, adults and children, small-pox being considered a *rara avis* very unlikely to visit that distant colony. However, as the unexpected generally happens, small-pox made its appearance in Sydney in June of last year, and was received with a feeling amounting to little less than panic, the commerce of the port being considerably interfered with, and the Government put to enormous expense. There was, of course, a great demand for immediate protection by vaccination, which could only be gradually and partially complied with. The Government took extraordinary measures under the Colonial Quarantine Act, and upon a suspected case of small-pox being reported to the authorities, the house was at once visited by a member of the Government medical staff, and if, on examination of the individual, the suspicion proved well founded, the house and its inmate were immediately placed in a state of strict quarantine, and no unauthorised person allowed to leave it, special police arrangements having been made to enable this to be effected. If the affected person was willing and fit to be removed to hospital that was done, and the other inmates, having been carefully vaccinated, were, if willing and there was accommodation, removed to the sanitary camp, an enclosed encampment erected several miles out of town as a quarantine station for apparently healthy inmates of infected houses. The house was then thoroughly disinfected and cleansed by a special disinfecting corps, and all infected clothing, &c., burnt. On the other hand, in cases where the persons attack were either unwilling or unfit to leave their houses, they were attended by the special Government medical staff, and were supplied with necessary medicine, food, bedding, &c., and nurses if required. The regular medical attendants would, on application, have received authority to enter and leave quarantine houses in

order to treat their patients, but there was such a small-pox scare that it would have been ruinous for a medical man in ordinary practice to be seen entering or leaving such houses; the treatment, therefore, with one homœopathic exception, devolved entirely upon the Government medical staff specially appointed. All the unaffected inmates were vaccinated, if willing, and either removed to the sanitary camp or quarantined in the infected houses, kept under observation, and supplied with food, clothing, disinfectants, &c., and on release compensated by the Government for their loss of time, &c. The compensation was, however, necessarily very inadequate for the loss of employment in many instances, and the ruin of business in the case of shopkeepers, whose stock-in-trade was spoilt and customers dispersed, many of the houses having to be kept in a state of quarantine for six or eight weeks or more. This state of things naturally led to a great dread of quarantine and to a considerable amount of concealment of the disease, there being no Act to compel the notification of infectious diseases, and in several instances hot-beds of infection were thus created, unknown to the authorities or even to the neighbours, with very troublesome and serious results, frustrating the attempts to arrest the disease and protracting the outbreak.

The epidemic never really assumed very extensive proportions, which fact must, I think, be greatly ascribed to the quarantine regulations, especially when the great number of unvaccinated people in the city, and especially in the infected districts, is taken into consideration. These measures no doubt confined the disease, in most cases, to a few houses, whereas otherwise it would have spread to many, while the prompt and very general vaccination and revaccination of the surrounding neighbours effectually limited or arrested its career by starving it out. The outbreak was at an end in eight months, and may, I think, under the circumstance, be fairly said to have been "stamped out." There can be no doubt that this would have been accomplished much sooner, and with much less expense and trouble had vaccination been compulsory, and had an Act for the compulsory notification of infectious diseases been in force. I quite agree with your remarks, that "the efficient vaccination and revaccination of the public generally are far more efficacious protections against small-pox than the mere isolation of the few who are known to have come into contact with infection."

Isolation by the quarantine system is doubtless a valuable sanitary measure in outbreaks of small-pox occurring in towns like Leicester and Sydney, where vaccination has been greatly neglected; but it is very harsh and severe in application, impracticable in many cases, and most expensive. It can at best only rank as an assistant to that great prophylactic vaccination in the stamping out of small-pox, and it is trusting to a broken reed to rely upon it as at all a substitute for efficient vaccination of communities.

I am, Sir, yours faithfully.

J. HIGHAM HILL, M.D., F.R.C.S.E.

Bedford-place, W.C., July 18th, 1882.

A CASE OF "TRUE EASTERN LEPROSY" IN ITS EARLY STAGES TREATED BY CHAULMOOGRA OIL.

To the Editor of THE LANCET.

SIR,—An interesting case of early symptoms of true Eastern leprosy, showing lesions of the trophic nerves and the skin, and illustrative of trophic changes, came under my notice through the kindness of Dr. Corbett of Kingston-on-Thames, who called me to see it, and I am therefore enabled to send you the notes of the case.

The patient, who has been in England now for four years, had traces of the disease, he states, about sixteen or seventeen years ago, and about twelve months since got very much worse—a formation of tubercles and ulcers taking place, which would not heal under all ordinary treatment. For the previous eight years, the patient stated, he had lived a very hard life in Africa (Southern) amongst the diamond-fields, digging and washing diamonds; and whilst there he was exposed to great heat in the day, and damp, cold, and miasma at night; he could get no fresh vegetables, and, indeed, hardly any food sometimes, and that of an indifferent character. Previous to his living in the diamond-fields, he was exposed to much privation on the sea. Sometimes he stayed in port in India, sometimes in the West Indies at Demerara, and had at times very bad food. He had also resided twenty years ago in Rio Janeiro; and—in my opinion a most important element in this history—he had a very bad attack of ague twelve years ago, relapses of which he has had several times since, some being worse than others. The patient is a short, thick-set, short-necked man, with sallow complexion and curvature of the spine in the upper part of the column. He is about forty-five years of age. He now has many small hard tubercles in different parts of his body, more especially on the hands and feet, on the dorsal surfaces, on the shoulders, legs, and thighs, face and ears, with also the remains of an eruption of maculæ, brownish in tint. These tubercles are hard and nodular to the touch, and nearly all suppurating. The ulnar and peroneal nerves are much thickened and tender to the touch. There is slight wasting of the muscles of the thumb and interossei; the sight is getting weak, and there is slight opacity of the left cornea, and he complains of great loss of muscular power; he has lost sexual power, and has a feeling of numbness and of pricking sensation in the hands and feet, along with fits of depression. All these symptoms go to show the true character of the disease. He has little or no loss of sensation in his body, in any of the patches or otherwise, like the case I reported to you in 1880.

After many applications both of specific and other kinds had been applied to this case, with little or no benefit to the patient, Dr. Corbett consulted me as to the nature of the case and its treatment. We came to the conclusion that it was a case of true Eastern leprosy in its early stages, and we resolved to give the patient chaulmoogra oil, both internally and externally. He was ordered three capsules of oil three times a day, and the crude oil to be rubbed into the parts well whenever affected twice a day. From the time this treatment was adopted the patient improved, and on July 4th Dr. Corbett writes to say: "I do not think I can add much to the history of the case or its description, except to supply the omission, that the tubercles, after suppuration, left deep ulcers with sharply defined edges and smooth sores, which no treatment, tonic or alterative, seemed to heal until the chaulmoogra oil was taken, when in a few weeks reparative action was set up, and they all quite healed. Fresh tubercles, not many in number, and entirely confined to the dorsum of the hands and feet, including the fingers and toes, still form and suppurate, but not one has resulted in ulceration. Since the oil has been taken, in fact, a good many of the tubercles do not suppurate, become abortive, and die away."

Now this case, as well as the last I reported to you, were much benefited by the administration of chaulmoogra oil; in fact, the case I reported in October, 1880, is as nearly well as can be, and the man is able to resume all his duties. I saw this patient last week at Kingston, and he assured me he was much better, and he had very few tubercles left. In my opinion, leprosy can be relieved, if not cured; and this opinion is shared now by other members of the profession. Mr. Hutchinson states he has seen cases that have quite recovered.

Your obedient servant,

Sackville-street, July 12th, 1882. JAMES STARTIN.

CASE OF CEREBRAL COMPRESSION TREATED BY BLEEDING AND CALOMEL.

To the Editor of THE LANCET.

SIR,—In reading lately some very old numbers of a medical publication I was struck with the indiscriminate way in which the above remedies were used by the practitioners of the day. There are many hundreds of cases reported in the volumes I possess, and in very nearly every case bleeding and calomel appear to have been the sheet anchors of treatment. A very large percentage of the patients died, and reading the report, having our minds enlightened by the physiological knowledge of the present day, points very strongly to the conclusion that the remedy was worse than the disease, and moreover, the immediate cause of death. There are, however, many cases recorded which strikingly show the value of the old antiphlogistic treatment when used rationally in appropriate cases, and I determined to try the effect at the earliest opportunity, which I did in the following case.

I was called to see a child, two years and a half old, at six A.M. on April 8th. The child was perfectly well on the

previous day. The mother went out early in the evening, leaving the child in good health, but on her return it had been sick and seemed silly. She gave it a hot bath and put it to bed; it was restless all night, but slept. At half-past four A.M. the mother found it in a fit; she gave it a bath and tried various homely remedies until six o'clock, when she sent for me. I found the little patient comatose, stretched full length on its mother's lap; pupils fully dilated, and insensible to light; slow stertorous breathing; urine retained; fæces passed involuntarily; laboured slow pulse, and left hemiplegia, which I treated by tickling the palms and soles; the right limbs were withdrawn, the left remained stationary. Here was evidently a case of compression of the brain, which had come on so suddenly that it could be nothing but blood or depressed fracture of the skull, yet no bruise or depression could be seen or felt on the head, and the possibility of injury was vigorously denied by its parents. I immediately gave two grains of calomel, ordered ice to the head, sinapisms to the calves, and drew off its urine. I saw the child again at eight o'clock; pupils not so dilated, nor breathing so stertorous. I again visited the child at half-past ten, and found it had relapsed into its former condition. On this occasion I interviewed a boy who had been in bed on my previous visits, and from him I learned that while the mother was out the preceding evening he had seen the child fall with the right side of its head against a brick wall in the garden. I took four ounces of blood from the left temple, and ordered a quarter of a grain of calomel every quarter of an hour. In two hours the patient was staring about bewildered, but not comatose; pupils still dilated, but not nearly to so great an extent; breathing easier. From this time the child has manifested a daily improvement; he is now in his usual good spirits, but studiously avoids any pressure to the right side of his head. The hemiplegia is rapidly disappearing under the influence of two-grain doses of iodide of potassium every four hours.

I should strongly oppose a revival of the old system of bleeding and mercurialisation as it was formerly used, but I think such cases as this tend to show that such treatment is valuable in certain cases and does not deserve the sweeping condemnation it gets. Had I followed the orthodox treatment, the probability is that this patient would have gone to the great majority of those on whom the operation of trephining has been performed, whereas he is now alive and on a fair road to health. It would be instructive if other members of the profession who share the opinions I have expressed would publish their experiences.

I am, Sir, yours truly,

July, 1882. HERBERT H. MEYERS, M.R.C.S., &c.

"DOCTOR OR DRUGGIST?"

To the Editor of THE LANCET.

SIR,—As to medical practitioners dispensing and supplying their own medicines, the whole of my observation and experience goes to prove that it is most desirable that the profession generally should hold fast to this privilege, and for the following good reasons: We maintain a firmer hold over our patients, retain their confidence longer and better, prevent them from drugging and treating themselves and those under their charge with unnecessary (and sometimes injurious) medicines. We frequently have more opportunities of seeing and treating diseases in their earlier stages, and thereby saving the lives of our patients. We can save expense to our patients, and indirectly increase our own incomes, a desideratum not to be lost sight of during these times of bad trade, keen competition, lowering of fees, and struggling to keep up respectable appearances in society. I maintain that every practitioner should be in a position to supply his own patients with all medical and surgical remedies whenever they prefer such, and that these remedies can very conveniently, and with dignity and pleasure, be included in the general professional fees for visit, advice, operation, &c. When a practitioner is awkward in dispensing, or has not time to do so properly, he can keep an assistant or pupil to dispense for him, or if he cannot do this he will probably have little difficulty in arranging with some one or more of his professional neighbours to employ a qualified dispenser, either to attend at their different residences at certain hours or to reside or attend at some central place set apart as a dispensary or surgery for such purpose. This latter mode is becoming general in many large towns (Leicester for example), and is found to work satisfactorily. Or if neither of the two foregoing methods can be adopted, these practitioners can still arrange with some local and honourable druggist to dispense privately for them, and to deliver the medicines either at their own residences or at their patients' houses. One of my practices was almost exclusively prescribing, having become so on account of my predecessor having held appointments which prohibited dispensing; and in two of my other practices my patients had their own choice as to whether prescriptions or medicines were supplied, and the general result proves the following further conclusions:—A very great majority (more than ninety per cent.) prefer to have medicines direct from the medical attendants, many positively refusing to go to the chemist's with their prescriptions, on account of the possibility of his suspecting or knowing that they are suffering from such and such diseases—to say nothing about the extra time, trouble, and expense they are generally put to by doing so. I have frequently detected errors and omissions on the part of dispensing chemists and druggists who have been entrusted with dispensing from my prescriptions (which are generally written fully, explicitly, and, in the case of new remedies, always after making myself practically acquainted with the best and most convenient mode of condensing and administering), besides, not infrequently exorbitant charges, considering the cost price of the remedies prescribed. Doing one's own dispensing nowadays does not involve the time and trouble it did twenty years ago, since every practitioner, by exercising a little forethought, can have most of his remedies prepared by his wholesale or manufacturing druggist—e.g., coated pills, concentrated infusions and decoctions, saturated solutions of salts and alkaloids, spread plasters, prepared ointments, and standard or private formulæ similarly prepared to hand; also cut wrapping papers, washed and corked bottles, and printed labels and wafers as desired. Further, if need be, practitioners can do almost the whole of their own dispensing at their patients' houses simply by carrying with them, either in their pockets or carriages, the chief medicines they are in the habit of employing; and in this latter mode Dr. Kirby has done much to popularise portable remedies in the form of coated pills and compact cases; while Messrs. Squire have also done something by preparing discs and lamine of the more important alkaloids for hypodermic use; and I should also add Dr. Boerhaave in introducing his dosimetric system of administering active remedies.

I trust I have now stated enough, although I could say even much more if time and your valuable space permitted, to prove the advisability of our retaining in any new medical Act due provision for exercising the art of compounding and dispensing (and charging for) medicines supplied to our own patients; of retaining the Worshipful Society of Apothecaries as an examining and licensing body, in common with the other bodies, or, at least, of keeping the legal power and function now possessed by that Society; and of practitioners generally being in a position to dispense and supply their own patients with medicines; and last, though not least, of speedily ridding our minds of the just now fashionable delusion (among some members of the profession) that in dispensing and supplying our patients with medicines we are in some way degrading ourselves in the estimation of the public.

I am, Sir, yours truly,

Clifton, July, 1882. JOHN BROOM, M.D., &c.

PERFORATING DUODENAL ULCER.

To the Editor of THE LANCET.

SIR,—A case of duodenal ulcer came under my notice recently, the details of which appear to me to be worthy of record.

John P——, aged thirty-four, a coachman, and a well-built, active, muscular man, apparently in robust health, consulted me in November, 1881, having been suddenly seized with agonising pain in the right hypochondriac region, extending downwards and to the back. The pulse was slow, of good strength; the skin cool, and in twelve hours he was free from pain. Morphia was injected subcutaneously. During the succeeding six months he had occasional attacks of abdominal pain and sickness, not, however, of such severity as to induce him to seek medical aid or to interfere

with his work. While in the act of stretching himself to hang a picture on the evening of April 23rd, 1881, about an hour after a meal of tea and bread-and-butter, he was again suddenly seized with the same pain as before, and when seen was in a chair, moaning, with the knees drawn up, pale, with a cool skin and a slow but not weak pulse. Bowels had acted during the day. Morphia was again injected with but little relief, and by the following evening he was in a state of profound collapse, and died in twenty-four hours after the seizure.

The abdomen was examined twenty-four hours after death. Rigor mortis complete, with great lividity of surface and rapid decomposition. On opening the abdomen, fetid gas and about two quarts of turbid brown fluid, with yellow floating shreds, escaped, and on raising the transverse colon a round perforation, half an inch in diameter, was seen in the duodenum, which was perfectly free from adhesions. The omentum had limited to some extent the spread of the peritonitis, but there was much soft yellow lymph on the liver and the adjacent bowel. On removing the duodenum, the opening was seen to have a thick rounded margin, firm to the touch, surrounded by folds of mucous membrane radiating from it.

Three years ago George S——, aged thirty-six years, while jumping on the hind step of a high gig, was seized with extreme pain in the abdomen and faintness. When seen by me he presented the phenomenon of collapse in the most intense degree, and for about six hours showed no sign of rallying. Gradually the pulse became perceptible, and warmth returned, but the abdominal pain was extreme, and for three days he lay in a dangerous state. In eight days he had recovered sufficiently to be removed to his home, a distance of some miles, and when heard of six months ago was alive and well. Previously for some months he had occasional attacks of abdominal pain, which he attributed to "cramp."

I am, Sir, your obedient servant,

W. HENDERSON, M.B. GLASG.

Stanhope-terrace, N.W., July, 1882.

SCOTTISH NOTES.

(From our Correspondent.)

ARRANGEMENTS are now complete in several towns in Scotland under which the delivery of popular science lectures during next winter, by well-known scientists, is assured. Health subjects are popularised by Dr. A. Wilson, of Edinburgh, and Professor Stirling, of Aberdeen, both of whom have shown quite exceptional power in bringing scientific knowledge within the grasp of the ordinary intelligence. These are the lecturers sent under the Combe Trust, and the Gilchrist Trustees purpose a similar course to that so successfully carried out last year. The eminence of the lecturers, their popular subjects, and the nominal charges were the means of attracting audiences numbering in many cases thousands, and this year several new towns have urgently asked to be placed on the circuit. In many cases the local medical men will again deliver courses of health lectures. These are in some instances reproduced in book form, and in the case of Edinburgh, at least, over 20,000 copies have been sold.

The local examinations conducted by the various Scotch universities have now been completed for the year. The popularity of these increases rapidly, and this year about 2400 pupils have come forward with very gratifying success. The medical interest in these arises chiefly from the fact that they offer an organisation of a satisfactory kind for relieving the universities and corporations from the task of conducting the preliminary examinations of medical students. At the recent meeting of the Medical Council some difficulty was said to exist on the part of the Scotch corporations, who had no body to which to depute this power, but facilities are here offered which would be convenient to the student and satisfactory to the Council.

The new hospital at Ayr approaches completion. It has an imposing frontage of 400 ft., and its central part is three storeys high. Accommodation is provided for forty-four beds in the main section, and in a detached portion twenty beds will be provided for fever patients. The rooms for the various officials are conveniently placed, and all modern hospital requirements have been provided. The cost will be about £8000, and most of this money is already subscribed.

St. Andrews is making large additions to its meagre hospital accommodation. A temporary hospital will be erected at a cost of £500. This, as well as the more substantial structure proposed, is for the reception of ordinary cases of disease; while the Gibson Hospital, now being erected at a cost of £4000, is intended for the maintenance of such of the aged, sick, and infirm poor of the city and parish as the funds may prove sufficient to support. The building will probably be ready for occupation early next summer. Provision is made for eighteen persons, each having a separate room.

It is satisfactory to note that the body of the late Earl of Crawford was in a complete state of preservation when found. The thieves had placed the body in a gravelly soil by the side of a brook, had wrapped it in a large blanket, and buried it about two feet deep. The features were so well preserved by the embalming process that no difficulty was felt in recognising the late nobleman.

PARIS.

(From our Paris Correspondent.)

AT a clinical lecture at the Hôpital de la Charité, Professor Hardy observed that we are perhaps not altogether justified in giving up entirely the practice of bleeding. He said that this valuable remedy was rather abused in former years, but that the modern school have gone to the other extreme in bleeding very little, or not at all. In fact, so little is it practised nowadays, that it is by no means a rare thing to meet a medical man of twenty or thirty years' standing who had never used the lancet; and the students who now leave the school are scarcely ever taught what phlebotomy is, or what its uses are. To demonstrate the utility of bleeding from the arm, Professor Hardy presented a female patient, aged seventy-six, who was admitted into the hospital with great dyspnœa, depending on marked cardiac troubles. On examining the heart, Professor Hardy discovered that the organ was greatly distended, and a bruit de souffle was heard at the apex, which pointed to mitral insufficiency. The tricuspid valve was affected in the same way, which was indicated by the jugular venous pulse. Professor Hardy diagnosed an asystolic condition of the heart, and bled the patient to 200 grammes, which afforded instantaneous relief to the most urgent symptoms.

M. Bouley submitted to the Academy of Sciences last week a paper, in the name of M. Carey, explaining how, by the aid of a new frigorific apparatus, he succeeded in destroying trichinæ in American salted pork. The apparatus produced 300 kilogrammes of ice in one hour. During nine days he preserved at freezing point 60,000 kilogrammes of ham, at an expense of only about 500 francs. But M. Colin, another veterinary surgeon of note, is rather sceptical about the efficiency of cold to freezing point in completely destroying the parasites, as, according to his experience, nothing short of boiling would annihilate them.

For a long time it was supposed that the habitat of trichinæ was confined to the muscular system of the pig, and that the other parts of the body of this animal enjoyed absolute immunity from them. M. Chatin has proved that the parasite exists equally in the adipose tissues, which he noticed particularly in bacon or salted pork; and which, he added, would necessitate the close examination of suspected meats in their fatty as well as their muscular parts. The same hygienist also found, with the aid of the microscope, a quantity of trichinæ at different degrees of development in the coats of the intestines. This discovery necessarily caused some alarm, as the bowels of the pig are imported to this country, and are employed for enveloping sausages prepared with indigenous meat.

M. Laborde, Chef du Laboratoire at the School of Medicine, desirous of disabusing the public mind of the imaginary atrocities of vivisection, got up a meeting with a view of performing publicly some experiments on live animals, for which purpose he had some frogs, rabbits, and dogs prepared for the occasion. But the moment he began his operations on a frog, a lady from the audience rushed up towards the table and protested vehemently against the performance of such experiments in public. The greater portion of the audience soon joined the lady in her protes-

tations, and the meeting broke up in the midst of the most uproarious confusion.

Dr. Coudereau, a young and promising physician, died at his residence in Paris on Wednesday, the 19th inst., from an attack of peritonitis, resulting from perforation of the bowels. The melancholy event occurred three days after an accident which happened to him. After hailing a cab in the street, and while in the act of running up to it, he was knocked down by another cab passing at the time. I have not been able to ascertain whether the perforation of the bowels was caused by the accident, or whether it was spontaneous. Dr. Coudereau was a man of great mental energy and public spirit. He occupied himself a great deal about hygienic matters, and was Vice-President of the Society of Inspectors of Insalubrious Lodgings in Paris. He was one of the founders of the Société d'Autopsie Mutuelle, instituted about five or six years ago, according to the statutes of which each member was bound to bequeath by will his skull and its contents to the laboratory of the Anthropological Society of Paris, with the view of prosecuting scientific researches. Owing to the great mortality among infants brought up by wet nurses, Dr. Coudereau conceived the idea of remedying this crying evil by founding a nursery in the environs of the town where infants were to be brought up by the bottle, under, of course, the strictest surveillance. The scheme was patronised by the Municipal Council, but when submitted to the Academy of Medicine for its opinion, it was rejected as being immoral. This opinion was expressed by Professor Depaul, but M. Jules Guérin, a sworn adversary of M. Depaul, retorted by saying that the present system so much in vogue of employing wet nurses is much more immoral.

A great treat was given to the inmates of the Salpétrière on July 14th to celebrate the national fête. The festive board was presided over by an old woman named Cornaveau, who had just completed her 100th year. She has been thirty-one years in the institution.

Paris, July 25th, 1882.

NEW YORK.

(From a Correspondent.)

THE scene enacted at the execution of the assassin Guiteau was such as was anticipated by those who had carefully studied his case from a medical point of view. With the rope around his neck he read a chapter from the Bible, and delivered his parting prayer of indecent blasphemy loaded with irrelevant sentiments with all the gusto of his former self. Finally, reciting a hymn composed by himself after the model of the nigger camp meeting songs, stating that he was about to go to meet the Lordie, with perfect composure, and a courage worthy of a better cause, he gave the signal for the drop by shouting, "Ready! glory! go!" Invitation by telegram was sent to several eminent alienists, which in most cases arrived too late to be acceptable, while in one case the telegram arrived on the day the examination was made. An unseemly squabble occurred over the body, but an autopsy was eventually made. Your exchanges will give the details, and I now enclose a copy of the report. In conversation with a leading alienist of New York city respecting the results of the examination of Guiteau's brain, he said that he regretted that so many omissions were made in the post-mortem examination. The expert witness who testified that Guiteau was insane had referred to several somatic anomalies, which, in his opinion, and taken in conjunction with Guiteau's hereditary history, were of strong collateral importance; the chief of these was asymmetry of the skull and face, probably indicative of a defect in cerebral development. Such defects are sometimes found in the group of lunatics to which Guiteau, in my opinion, belonged, and manifest themselves in deformity or asymmetry of the skull and brain, as well as in atypy of the gyri. Muhr, Stark, Jensen, and Schnele have described such cases. Under these circumstances the separate brain hemispheres should have been weighed in order to establish the difference in gravity. Judging by the difference in the dimensions of the two halves of the skull, I feel very certain that the difference must have exceeded the normal limits greatly; more than sufficiently so, in fact, to constitute an anomaly. They neglected to do this. Another omission was the neglect to measure the skull, but as we have a cast of the prisoner's head taken during his lifetime, and the skull will probably be secured for the Army Medical Museum, this can be practically rectified. As to the actual facts obtained at the autopsy, they seem to me to fall into two classes. The first are those indicating anatomical peculiarities, the second those of a strictly pathological character. Dr. Lamb, as well as Dr. Morton, in their separate reports agree that the right half of the skull was less developed than the left, that the gyri were grossly asymmetrical, the left side being considerably better developed than the right, and some of the fissures on both sides showing unusual features. The opaque and yellow spots in the arachnoid, and the thickening of the dura mater, as well as its adhesion to the skull, are evidences of brain disease. I do not look upon them as the cause of Guiteau's insanity, but rather as belonging to that class of lesions, found so much more frequently in the insane asylum than in the general hospital, which are results of insanity, whether of repeated fluxionary hyperæmias or not others may determine. The inequality of the skull, brain halves, and the atypy of the gyri, are to my mind consistent with Guiteau's clinical history; he was born with that brain, as he was born with his insane tendencies. The defect in his speech, and the defect in the innervation of his left facial muscles, are all evidences of an early irregularity of innervation. The importance of these physical symptoms, as of the anatomical peculiarities noted, lies in their similarity to the findings in the authenticated cases of "Originære Vermecktheit" of the Germans (original monomania, with systemised delusions), recorded in literature. My evidence on the stand to this effect is borne out by the post-mortem record. As to the inflammatory signs, I look upon them as complicatory and unessential. They might perhaps serve as a support to the view of Dr. Folsom that, in addition to the form of insanity which I believe Guiteau to have suffered from, paretic dementia was beginning to show itself as a complication. I would briefly summarise the matter by saying that if nothing abnormal had been found in Guiteau's brain, it would not have proven his sanity, because in many insane brains no lesions can be detected, while the findings now recorded do not positively prove his insanity, though they point to it as positively as any findings in the insane brain ever can point to mental disease, if we except cases of insanity with paralysis. Taking the matter as a whole, it must be insisted that there is a remarkable harmony between the post-mortem findings and Guiteau's life-history in the light of our present knowledge of insanity.

While on the subject of insanity I can state that the latest returns show that the ratio of insane to the sane in the United States has more than doubled during the last ten years. In 1870 the insane population amounted to 37,442, the ratio being 1 to 1100. In 1880 the number was estimated to be from 80,000 to 96,000, which gives a ratio of 1 to 570 to 1 in 520 of the whole population. Forty million dollars are invested in insane asylums, the average cost of these institutions being half a million dollars each, including interest on capital; the annual expenditure is 12,000,000 dollars for the care of the insane. The accommodation is quite inadequate for the insane in this country. At the present time 74 State and 14 large private asylums exist, having an approximate capacity for about 32,000 persons, but really holding nearly 40,000 patients. These institutions were therefore crowded to the extent of 8000 persons, while about 50,000 lunatics are unable to obtain admittance. Arkansas, with a million of inhabitants, has no asylum whatever; Texas has accommodation for one-fifth of its insane. Pitiable are the accounts of the manner in which the non-asylum insane are treated in the South. Daily complaints show that these unfortunates are stowed away in gaols, workhouses, and with those who farm the poor, and are treated with neglect and inhumanity. Our State Legislatures are warned that before many years the New England and middle States will have an insanity ratio of at least 1 to 350, the Western States the same, and the Southern States 1 to 500 or 600. If they would do what is understood to be done for the insane in England, they must find accommodation for at least three-fourths of such persons. With such a rapid increase of the insane population, it is noticed with regret that slow progress is made towards a thorough comprehension of mental disorders and diseases of the brain. Three hundred physicians are in charge of the United States insane asylums, who have exclusive opportunities of studying the science of psychiatry upon their 40,000 patients. But, as a rule, they contribute nothing of real value to the literature of

the subject. I think such a state of things is unparalleled in any other civilised country in any other medical speciality. I find in one report an exposition of the exploded theories of phrenology, in another an elegant plea for 20,000 raspberry bushes, while in a third a petition is made to the Legislature for a stone; but I look in vain for any demand for a microscope, or any report of any scientific work showing a scientific spirit or a humanitarian interest in the care and treatment of the insane under their charge. In justice to many able men in charge of these establishments, an acknowledgment is due to them for their conscientious efforts to prove good superintendents; I would like to see in the future stronger evidence that they are studious physicians.

July 8th, 1882.

HYPNOTISM IN PARIS.

(From an occasional Correspondent.)

No. III.

WE have seen that the manœuvres employed by mesmerists were capable of inducing a kind of sleep which assumed the different forms of somnambulism, ecstasy, and catalepsy. These states are produced under the influence of an imaginary agent or fluid, to which the name of animal magnetism has been given, and which in certain conditions is said to be transmissible from one person to another. Similar in its results to mesmerism is hypnotism, which Mr. Braid, of Manchester, was the first to bring to notice more than forty years ago. According to this gentleman, hypnotism is capable of effecting more good than can be accomplished by the ordinary mesmerising processes, and it was produced not by any moral agency, as is the case with mesmerism, but by a direct influence on the subject to be experimented upon. The process employed by Mr. Braid to induce sleep was to hold any small object about ten or twelve inches above the middle of the forehead, so as to require a slight exertion of the attention to enable the subject to maintain a steady, fixed gaze on the object. The subject may be either sitting or standing, and he is requested to engage his attention as much as possible on the object he is looking at, and yield to the tendency of sleep which will steal over him in the course of about three or four minutes, and which manifests itself by insensibility and the tendency of the subject to remain in a given position. Thenceforward this process received the name of "neuro-hypnotism," or, as it is also termed, Braidism, to distinguish it from that produced by animal magnetism. Strange to say, the writings of Mr. Braid on the subject did not excite much attention in England, but this new form of magnetism met with a better, though tardy, reception in France. M. Broca was the first to bring it to official notice in that country, and after having verified the results obtained by this new process, determined to employ it in surgical operations as a kind of anæsthetic. He tried it on a patient, a young woman, on whom he performed a painful operation under the hypnotic state which lasted a quarter of an hour, and, the result being favourable, he submitted the case to the Academy of Sciences on December 5th, 1859. It is evident, however, that the impression produced by subsequent trials was not sufficiently favourable to warrant its being adopted as a therapeutic agent; for Broca himself abandoned it, and no more notice was taken of it, at least in scientific circles, until recently, when it was revived by Dr. Dumontpallier and Professor Charcot on the one hand, and by M. Donato, a public magnetiser, on the other. The readers of THE LANCET will recollect the experiments performed by Professor Charcot at the Salpêtrière Hospital, which he began about four or five years ago, and which were reported in most of the medical journals in this country and elsewhere. On one occasion he gave a regular "séance" at the hospital, in the presence of Gambetta and other political celebrities, when he made the patients, all females, fall into convulsions, jump, dance, laugh, cry; and he produced other phenomena which one may witness any day at the "salle de conférence" of M. Donato, who is not a medical man. I have seen the latter obtain the most extraordinary results from subjects he had hypnotised. He discards the term "mesmerism," as his mode of proceeding is different from that practised by Mesmer and his followers. Professor Charcot produced hypnotism by a process somewhat different from that adopted by Braid; but only in form, as the result was exactly the same. Instead of getting the patient to fix her eyes on an object held over her forehead, Professor Charcot began by placing her before a strong light, such as a Drummond's or an electric light, at which she was desired to gaze. In a few minutes or seconds, or sometimes instantaneously, the patient fell into a sort of sleep, termed "hypnotism," which, according to M. Charcot, is a state absolutely different from natural sleep, and is perfectly typified in cases of hystero-epilepsy, in which there is a complex condition of the nervous system, to which the terms "cataleptic," "lethargic," and "somnambulistic" have been applied. In a paper read before the Academy of Sciences in February last, and which was presented in support of his candidateship, Professor Charcot stated that each of these conditions was distinguishable by a symptomatology of its own. The cataleptic state may manifest itself primitively under the influence of a great noise, a bright light placed in front of the patient, or the prolonged gazing at an object. In this state the patient remains immovable, with the eyes wide open, and will so remain as long as the object that excited it continues before her eyes. The limbs preserve for a long time the attitudes given them; when moved they give the sensation of great lightness. The joints offer no resistance whatever, and the reflex action of the tendons is more or less abolished. The respiration is extremely slow, as indicated by the pneumograph. The persistence of sensorial activity in the patient permits the operator to produce, by what Braid termed "suggestion," various automatic phenomena, which, however, are not peculiar to the cataleptic condition, as we shall see further on. The mere closing of the eyelids, or placing the patient in a dark room, is sufficient to transform this state into that of lethargy. The latter state may also be induced by the operator fixing his gaze on the patient's eyes. In this lethargic state the eyelids are closed, and the globes of the eyes convulsed. The body is sunk down on itself, the limbs are relaxed, and the respiratory movements, studied with the aid of the pneumograph, are found to be deep and precipitous, but otherwise regular. The reflex action of the tendons is always exaggerated to a remarkable degree, and M. Charcot has noticed that the muscles are readily brought into a state of contraction by the application of a mechanical stimulus to the tendons, to the muscles themselves, or to the nerves by which they are supplied. M. Charcot has given to this phenomenon the name of "hyperexcitabilité neuro-musculaire." During the whole time that the lethargic state lasts the operator can reduce the contraction thus produced on applying the stimulus to the muscles antagonistic to those contracted; but if the stimulus be limited to the surface of the skin no effect whatever results, whether in producing contraction of the muscles or reducing them when contracted. In the lethargic state any attempts to produce any effect on the patient by way of intimidation or by suggestion are generally fruitless. The somnambulistic state may be induced directly by the gaze of the operator or by slight sensorial excitation, often repeated and monotonous. It may be produced in subjects already plunged in a lethargic or cataleptic state by slight friction over the vertex. The patient in this condition has her eyes closed, and if left to herself, she has the appearance of a person in a state of artificial stupor rather than that of normal sleep. The resolution of the limbs is never well marked, the reflex power of the tendons is normal, and the neuro-muscular hyperexcitability described above is *nil* in this case. On the other hand, the slightest excitation of the surface of the skin produces rigidity of the limb, which differs from the contraction connected with neuro-muscular hyperexcitability in that it does not yield, as is the case with this latter condition, to the mechanical excitation of the antagonistic muscles, whereas it yields readily to the influence of the slight cutaneous excitation that gave rise to it. In this state it is generally easy to get the patient to go through automatic exercises of the most complicated and varied character by simple word of command. By slight pressure over the globes of the eyes, the lethargic state is converted into the somnambulistic state; if, on the other hand, the eyelids be separated and be kept open in a lighted room, the cataleptic state is not produced. From this it may be inferred that the connexion is more direct between the lethargic and somnambulistic states than it is between the latter and the cataleptic state. Such are the results said to have been obtained under the

influence of hypnotism by Professor Charcot; but he admits that, generally speaking, the boundary line of the different phenomena is not so distinctly marked as one would be led to infer from the description given above, as one state runs into the other, and he scouts the idea of these different manifestations of hystero-epilepsy being attributed to simulation or fraud. There is, however, one thing certain, and that is, that hypnotism and animal magnetism or mesmerism are one and the same thing, and that they are produced by manœuvres differing only in form. In the earlier days of mesmerism the phenomena produced were ascribed to a peculiar fluid, which under certain conditions was readily transmissible from one individual to another. Later on the phenomena were ascribed to the effects of the imagination, or, to speak more correctly, the phenomena were produced through the imagination, or through the nervous system. That the latter was the true medium is accepted as the current explanation of the day; and, indeed, Dr. Dumontpallier, in a paper he read before the Academy of Sciences in March last, defines hypnotism to be "a peculiar nervous state, the existence of which cannot be denied in the actual state of science. Comparative experimental physiology has, in fact, admitted its reality by showing the great inconveniences that may arise from its persistence, or too frequent occurrence, in man and animals." This admission by Dr. Dumontpallier was made after a very important paper read by Milne-Edwards, the celebrated biologist, at the Academy of Sciences in February last, and the note of Dr. Dumontpallier referred to was doubtless intended as a rejoinder to Milne-Edwards' paper, the title of which was the "Effects of Hypnosis on Animals." The following is a short extract from Milne-Edwards' paper, which was preceded by a note from Professor Harting of the University of Utrecht. Professor Harting states that after some experiments he had performed some years ago on certain animals, such as the common fowl, pigeons, rabbits, guinea-pigs, frogs, &c., which had been hypnotised in the usual way, he has come to the conclusion that if hypnotisation be frequently repeated on the same subject, its nervous system will be very much shaken. He submitted six fowls to hypnotisation at intervals of two or three days; at the end of about three weeks one of the fowls began to limp, soon after which hemiplegia declared itself, and the animal died. The same thing happened to five other fowls. They were all affected with hemiplegia, one after the other, though at different intervals. In three months all the fowls died. These facts, added the learned Professor, ought to make one very cautious in applying hypnotism to human subjects. M. Milne-Edwards repeated the experiments performed by Professor Harting on mammiferous animals as well as on birds, and, *à priori*, he concludes that if the same phenomena were frequently evoked in hysterical women as those produced in the fowls, their health must eventually suffer. Moreover, after further researches on the subject, he had reason to believe that persons frequently submitted to such influences gradually perfected themselves as "subjects of demonstration." This would appear to point to the fact that by habituating the functions of the nervous system to a pathological routine, the evil becomes aggravated. Whence the deduction that hypnotisation or other analogous performances should never be practised on hysterical subjects. By a curious coincidence this paper was read just before Professor Charcot submitted his thesis at the same meeting of the Academy, already referred to, and the title of which was "Researches on Hypnotisation in the Hysterical." Milne-Edwards' paper would serve as a reply by anticipation; but Dr. Dumontpallier again took up the subject, and in the paper he read before the Academy of Sciences in March last, already referred to, and entitled "Rules to be observed in the Hypnotisation of the Hysterical," resolved to explain the method to be adopted to prevent any inconvenience that may be apprehended in the determination of the different periods of hypnotism. The following is a brief summary of that paper:—"In an hysterical subject, the upper lids being lowered, the rubbing of the globes of the eyes may at once produce lethargy, and this state may be maintained so long as the eyes are kept closed; but the renewed rubbing of the eyes makes the lethargic state cease, and rouses the patient. The cataleptic period may be obtained at once by reflected sunlight, directed over the open eyes of the subject. This period persists as long as the upper lid is kept raised. In renewing the same manœuvre the catalepsy disappears, and the patient is awakened. The period of somnambulism is obtained at once by light pressure on the vertex. The same pressure renewed will rouse the subject from the state by which the latter was produced. In all these experiments," adds Dr. Dumontpallier, "it is possible to pass the subject from one period to the other by making use of each of the processes detailed above, and commencing by such other phasis as the operator may desire. The states produced should be made to disappear in the order just the reverse of that of their production in employing the means that gave rise to them.' Dr. Dumontpallier did not attempt to explain how these different phenomena were produced, but suggested that if any of the members present would wish to assure themselves of the reality of the phenomena, they had only to find a hypnotisable subject. This, however, is no response to the statements made by M. Milne-Edwards concerning the danger of making hypnotic experiments on the human subject; and I am not aware that Professor Charcot has made any since the thesis he read at the Academy of Sciences already adverted to, but which, however, could scarcely be considered a reply.

At a meeting of the Biological Society, held some time previously, Professor Charcot read a paper on the phenomena resulting from the application of a galvanic current to the upper part of the cranium during the lethargic period of hypnotism in hysterical patients. During this period, according to M. Charcot, there exists a state of neurotic hyperexcitability which extends not only to the muscles and nerves, but to the motor regions of the cerebral centre. This state of hyperexcitability is manifested by sudden muscular starts in the face and limbs on the side opposite to that to which the electrodes are applied, but the results are negative when the same experiments are repeated whilst the patient is awake. How the current passes through the bones of the cranium is a question which M. Charcot does not attempt to solve for the moment, but submits it to the consideration of his colleagues. Whereupon M. Dumontpallier endeavoured to show that it was difficult to limit to a point on the surface of the cranium and of the cerebral mass the action of four to ten elements of the battery employed by Professor Charcot (Leclanché's), and he found that the prick of a pin on a limited spot on the scalp was sufficient to determine varied movements, more or less extensive, in the limbs and in the face, which he explained by the irritation being produced at a point corresponding to the motor zones of the cortical substance of the brain. Dr. Dumontpallier produced similar phenomena by blowing through a capillary tube on different regions of the scalp. These experiments were performed on an hysterical patient before the Biological Society, the results of which, he said, were exactly similar to those he had previously obtained in more than fifty other hysterical patients in his hospital wards, and the results have always borne the same relation with the regions irritated. The members present at the meeting were visibly amazed at what they had just witnessed, and naturally endeavoured to elicit some explanation; but all they could get from their colleague was, "J'ai montré des faits, je n'ai rien à ajouter." Donato could hardly have said less. Dumontpallier, however, anxious to impress on his colleagues the importance he attached to his experiments, summed up his paper thus:—"In the different periods of hypnotism it is possible, through the means of an agent specially adapted, to limit on the surface of the scalp a certain number of reflex ogenetic zones (*zones réflexogènes*) the irritation of which determines movements in different parts of the body. Some of these zones seem to correspond by their position to the cortical motor regions of the encephalon. The application of several other agents, most varied in their nature, has produced the same results. These agents are—feeble continued electric currents, the loadstone, heat, light, sound; and the hypothesis of their mode of action was more than justified by previous experiments, in which these agents produced aphasia, loss of notion of the use of ordinary objects, and loss of the faculty of reckoning." But, as already stated, Dr. Dumontpallier does not attempt to give any explanation as to the mode of action of these different agents. How they act through the bones of the cranium is a question he is unable to solve at present, and leaves it to his colleagues to form their deductions from what they had seen and read on the subject. I may, however, observe that there is something so unphysiological in all the experiments described above, or rather in the results alleged to have been obtained, that were it not for the high professional status of the experimenters, the investigations would hardly be deserving of serious notice. In fact, M. Donato, the public magnetiser already alluded to, has obtained

the same results, as may be witnessed at his public "séances," or *conférences*, as he pleased to call them, to give them more the character of scientific meetings. He even goes further than Drs. Charcot and Dumontpallier, and pretends to have the power of paralysing or rendering insensible during the magnetic state the special senses, the nerves, muscles, the different organs, either singly or in groups, without having himself the slightest notion of anatomy or physiology. In other words, he professes to paralyse functions, and not organs, which, he says, is quite another phase of this new form of animal magnetism. So it is with a vengeance; and if anyone will unravel this very unphysiological and withal incomprehensible problem, he will deserve well of humanity; as M. Donato, like his more learned rivals, tells his audience: "J'ai montré les faits, je ne peux pas les expliquer." M. Donato—who, by the way, is a Frenchman, and not an Italian, as his name, which is only an assumed one, would lead one to suppose—objects to the term hypnotism, or sleep, as a person "hypnotised" has neither the expression, the behaviour, the physiognomy, the movements, nor the general aspect of a person in a normal condition; and, for want of a better term, he calls it "l'état magnétique."

AIX LES BAINS, SAVOY.

(From our Roving Correspondent.)

FRANCE, according to that eminent balneologist, Dr. onstantin James, contains within its borders a richer and more varied supply of mineral springs and hydrotherapic health-resorts than any other country in Europe. Not the least important and valuable of these, although at the same time it is the most recent acquisition, is Aix les Bains, which just now is in the high tide of popular favour not only in France but also in England and other European States, by that numerous and ever-widening circle of health- and pleasure-seekers, who are to be met with in such localities. How much the reputation of Aix is due to its sulphur springs, and how much to its charming situation, to its excellent hotels and public gardens, and to the pleasant, cheery life and amusing manners and ways of the French people of the district, it would be difficult to say. This, however, is indisputable, that excellent therapeutic results are obtained from a residence at Aix in a variety of chronic ailments, especially those of a rheumatic and gouty nature, and that few people are to be found who have once visited Aix either as patients or pleasure-seekers who would not gladly pay it a second or third visit. The waters spring from the earth at a temperature of 113° F., and are rich in sulphates of soda, magnesia, and alumina, fluoride of calcium, and carbonate of lime, with much free carbonic acid and nitrogen. The hot baths and douches and the subsequent shampooing, which is admirably carried out, tend to accelerate the circulation and to incite to activity the latent forces of the body. They are therefore useful in chronic joint affections, sciatica, secondary syphilis, and in lymphatic and glandular enlargements in those of a strumous habit. In addition to the exciting or stimulating effects derived from the hot bath and douche medication there is a tonic or sedative method of treatment, which consists in the use of lukewarm baths and douches, by inhalation of sulphurous gas, and by drinking the sulphurous water. The piscines in which the patients bathe will accommodate from twenty to forty persons; there is no swaddling affer it. A sedan chair is not required to take you back to your hotel, but you are quickly dried with warm towels by an attendant, and then allowed to walk home. This system is suited to cases of bronchitis and tuberculosis of the lungs in an early stage, as well as to rheumatic, to scaly and papular skin diseases, such as psoriasis and lichen.

The establishment is one of the handsomest in Europe, and contains twenty-five spacious rooms for the douches, thirty-two private bath-rooms, four large piscines or swimming-baths, besides numerous apartments in which inhalation, "douche de siège," "douche en cercle," and other local baths are carried out; while in the basement are also small chambers where the heat and sulphurous fumes are so overpowering that they are well called "douche d'enfer." The supply of water is computed at a million gallons a day, and 1200 baths, 2000 douches, and 200 inhalations are administered daily during the season, which lasts from the beginning of May to the middle of October. Numerous physicians of eminence may be consulted at the establishment, or at their own chambers, and without their instructions no one should submit himself to a course of baths.

The therapeutic value of the waters of Aix is best seen in rheumatism, arthritis or osteo-arthritis, and in muscular pains or in sciatica. In such cases Dr. Garrod recommends Aix in preference to Turkish baths; and Dr. Robert Adams, in his treatise on rheumatic gout, also speaks highly in its favour. Dr. Garrod says, "I have seen numerous cases of rheumatoid arthritis, in its earlier stage, most signally benefited by this treatment (waters of Aix, Marlioz, or Challes), and in several the disease seemed to have been entirely arrested. The treatment is also peculiarly valuable when there has been any skin complication—e.g., eczema or psoriasis. Sir Dominic Corrigan came to Aix in 1875 to be cured of some gouty stiffness and puffiness in the joints of the lower extremity, and, in writing to Dr. Bertin, in April, 1876, to introduce another patient, he says, "Thanks to you and Aix les Bains, I am now quite well." The works of Dr. Bertin, Brachet, and Cazalis will give ample information as to the special effects of using sulphur baths and of drinking the mineral waters of Aix.

In the immediate vicinity of Aix are two other sulphur springs, Marlioz and Challes, each of which has special merits and deserves notice. Marlioz has water highly charged with sulphur and soda, and also slightly with iodine and bromine. It is nearly a mile from Aix, and stands in a handsome park. The water issues at 57° F., and at the rate of 1400 gallons a day. There is a fine pump room, two inhalation rooms, nine private bath rooms, a cold douche, two ascending douches, &c. Challes is three miles from Chambery. The temperature of the water is 53° F. It is 935 feet above sea-level, and its springs are very rich in sulphide of sodium. Aix is fourteen hours from Paris, on the direct railway to Turin, there being two express trains a day. It was celebrated in the time of Domitian, in whose day the Roman arch (Arch of Campanus) now standing in front of the bathing establishment was probably erected.

In 1784 Victor Amadeus III. sojourned at Aix, and about that date the thermal establishment was commenced, but its great development dates from the time when Savoy was handed over to France, after the battle of Solferino. The Government has erected a hospital for poor bathers, and has also provided the town with a fine park. Aix is prettily situated at the base of Mount Revard, 850 feet above sea-level, and is one mile from the picturesque lake Bourget. Its hotels are large and commodious. There is a fine assembly and also a reading-room, in which all the leading European papers are to be found. Many excellent excursions can be made on the lake, as to Haute Combe at the foot of the Dent du Chat, where are the tombs of the princes of Savoy. Those who can spare the time should visit the lake of Annecy, the Gorge de Fier, the monastery of the Grande Chartreuse, and make the ascent of the Semnoz or Rigi of Savoy, by each and all of which they will be amply repaid.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons, on Friday, July 21st, a petition was presented from the South-Eastern Branch of the British Medical Association, praying for redress of the grievances of militia surgeons. On the motion of Mr. Round, a return was ordered of the number and cost of pauper lunatics in county and borough asylums in the three kingdoms. On Saturday and Monday further petitions were presented *re* the grievances of militia surgeons. The Union Officers' Superannuation (Ireland) Bill was read a second time on Saturday. On Monday, the twenty-fourth report of the Board of Superintendence of Dublin Hospitals was presented.

Ventilation of the Houses of Parliament.

On Tuesday, Mr. O'Shea asked the First Commissioner of Works whether complaints had reached him of defective ventilation and noxious exhalations in and about the House; and, if so, whether he would have the nuisance abated.

Mr. Shaw Lefevre read a report which he had received from Dr. Percy. The latter stated that during the seventeen years he had had charge of the ventilation of the Houses of Parliament many complaints had been made of unpleasant

smells. In every case he found they were caused by contamination of the air outside, sometimes at a considerable distance from the House, the wind blowing the contaminated air in the direction of the building. It was not possible to prevent such smells in the House when the air outside was so impregnated. Some of the unpleasantness lately had arisen from the tar which the wood pavement in the neighbouring thoroughfares was covered. No sewage gas could possibly escape from the drains under the building, as they were exhausted, and the gas allowed to escape at the top of the tower. The Chairman of Committee, who was a scientific man, and, as he himself said, peculiarly sensitive to smells, informed him that he thought on the whole the ventilation of the House within the past few months had been maintained exceptionally well.

Belfast Workhouse.

On Wednesday, Mr. Biggar gave notice of a series of questions imputing grave neglect of duty to the master of the Belfast workhouse, who it was alleged had refused admission late at night to three persons bearing orders marked "urgent," and they were found by the police lying at the workhouse gate. It was stated that one of the three was an old man, seventy years of age, who was suffering from a severe attack of hæmorrhage; and another was an old woman of sixty-seven. It appeared that complaint had been made of previous cases, and also that the guardians had approved the conduct of the master; and Mr. Biggar intends to ask, if these allegations are true, what steps will be taken by the Local Government Board.

Carlow Workhouse.

Mr. A. O'Connor put upon the paper three questions with regard to this workhouse. They refer mainly to the conduct of the chairman of the board of guardians, who is accused of having acted without the authority of the board in ordering additional works connected with the workhouse and infirmary; but the third question is as follows: "Whether Dr. Rawson, the medical officer, who also attends the soldiers stationed at Carlow, has on several occasions introduced into the workhouse for treatment soldiers suffering from loathsome skin and other affections; and if so, whether the Chief Secretary intends to take any notice of the practice."

Vaccination Questions.

On Thursday, Mr. P. A. Taylor inquired of the Home Secretary whether it was true that Mr. James Burman, of Derby, who had been sentenced to seven days' imprisonment for refusing to have his child vaccinated, was compelled to sleep on a plank bed, was refused sufficient clothing by day to prevent his suffering from cold, and was compelled to pick oakum, although hard labour was not a part of the sentence.—Sir W Harcourt said he had inquired into the case, and found that nothing was done which was not in strict accordance with the prison rules.

Mr. Taylor also asked the President of the Local Government Board whether he had received any report in reference to the vaccination fatality at Norwich, and, if so, whether he proposed to have it printed; whether he had ascertained the description of lymph used upon the occasion; and whether he had forbidden the use in future of similar lymph.—Mr. Dodson said he had not yet received the report of the inspector, and therefore was unable to give the hon. member the information he asked for.

The Expedition to Egypt.

In the debate on the vote of credit, Mr. Childers stated that the sanitary arrangements for the expedition had been very carefully studied. Whilst extravagance was to be avoided, there could be no worse form of penury than starving those arrangements. Eight field hospitals were being established, and two hospital ships, and two large hospital depôts. A very large staff of doctors was being sent out, with 800 men of the Army Hospital Corps. Every precaution was being taken to preserve the soldiers from ophthalmia, and a body of nurses was being sent for service, not only in the hospitals and depôts, but also in the field. Every arrangement was made to secure a sufficient supply of water for the troops. The question of the best clothing had been duly studied, and the tents were all double, which was a most essential thing in that climate. As to land transport, they had now done what had never been done before—viz., they had sent out an adequate regimental transport with each regiment.

ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the Fellows, held at the Royal College of Physicians, on Thursday, the 27th inst., the annual reports of the Library Committee and Curators of the Museum were read, and the thanks of the College were given to Dr. Barclay, Dr. Arlidge, and the executrix of the late Dr. Jenks, of Bath, for valuable donations of books. Dr. Sieveking then moved the resolution of which he had already given notice—to wit, "That the system of extensively advertising medical works in non-medical journals, and the custom of giving laudatory certificates of medicinal and other preparations, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians." An animated discussion ensued, and several amendments were suggested and withdrawn. Ultimately the original resolution, with the omission of the words "in non-medical journals," and the insertion of "and medical and surgical appliances" after the words "other preparations," was carried by a large majority.

The election of officers was as follows:—Censors: Drs. Munk, Andrew Clark, Lionel Beale, and Pavy. Treasurer: Dr. Farre. Registrar: Dr. Pitman. Harveian Librarian: Dr. Munk. Curators of the Museum: Drs. Wegg, Lionel Beale, Reginald Southey, and John Curnow.

Obituary.

THOMAS BARBOUR MOFFAT, M.D. ST. AND.

DR. MOFFAT, whose death took place on the 16th inst. from cancer of the pylorus, was a well-known and highly respected practitioner at Hawarden in Flintshire for the last forty-five years. He came of a respectable old family, the Moffats of Sundaywell and Stroquhan, in Dumfriesshire, where he was born in 1813. He studied at Edinburgh, where he took his surgeon's diploma in 1836. Shortly afterwards he came to Hawarden as assistant to Mr. Probart, surgeon there, to whose practice he soon succeeded. In 1842 he took his M.D. degree at St. Andrews. He was a Fellow of the Geological Society and of the Sanitary Institution; Member of the Epidemiological and of several other scientific societies, and author of many papers on geology, meteorology, and sanitation, &c. Although of considerable professional and scientific ability, he was content to find his calling in a hard country practice rather than cultivate a more wealthy *clientèle* in one of our larger towns. Though a man of strong individuality of character, yet his cheerful disposition and ready sympathy won him the respect and friendship of nearly all who came in contact with him, and his death is greatly regretted. As he did a large amount of work for little pecuniary remuneration, he did not leave much of this world's goods behind him. He is survived by his widow, six sons, and three daughters.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst.:—

Birch, Henry Priestley, Harley-street.
Carlyon, Edward Trewbody, Truro.
Fenner, Robert Nathaniel, Greenwich.
Knight, Frederick, Swansea.
Russell, Robert Hamilton, Farningham.
Sheppard, William John, Putney.
Thring, Edward Thomas, Birkenhead.
Tresidder, Edward Stanley, Dulwich.
Williams, Edward Richard, Corwen.
Wilson, Mervyn Seppings, Kilburn.

The following gentlemen were admitted Members of the College on the 21st inst.:—

Back, Herbert Hatfield, Hethersett, Norfolk.
Barber, Alfred, Basingstoke.
Berry, James, Upper Bedford-place.

Blagg, Arthur Frederick, Crowndale-road.
Bollen, Frederick James, Port Adelaide.
Frost, George, Dorking.
Howell, James Bromley, Wandsworth.
Marsh, Nicholas Percy, Liverpool.
Maude, Arthur, Highgate.
Nicholson, Robert Howard, Ilfracombe.
Skipper, Edward, Dalston.
Viney, Josiah Ernest, M.B. Cantab., Highgate.

The following gentlemen were admitted Members of the College on the 24th inst.:—

Anderson, Alfred Jasper, Blackpool.
Carr, Thomas, Brixton.
Claremont, Louis Bennett, Camden Town.
Davies, W. T. Frederick, Swansea.
Eastes, Frederick, Folkestone.
Elgood, Charles Reginald, Wisbeach.
Gibson, John Hutchinson, Trinity-square.
Hern, William, Ashburton, Devon.
Jacob, Arthur Howard, Sarbiton.
Jones, Isaiah Henry, Maida Vale.
Quick, Frank, Coventry.
Toller, C. W. Edward, L.R.C.P. Lond., Wimbledon.
White, Ernest Alfred, Leeds.

The following gentlemen were admitted Members of the College on the 25th inst.:—

Banatvala, Hormasjee Edaljee, L.R.C.P. Lond., Bombay.
Campbell, Samuel George, Natal.
Gordon, Edward, L.S.A., Stockport.
Gracie, Charles Batten, Liverpool.
Freeborn, J. C. Richard, Oxford.
Harratt, Henry, Brixton.
Kelly, Charles Augustus, Mount-street.
Lilly, Frederick John, Southampton.
Spong, William, Clapham.
Thomas, John Lloyd, L.S.A., Beaumaris.

The following gentlemen were admitted Members of the College on the 26th inst.:—

Benjafield, William Barnett, M.B. Edin., Leatherhead.
Beverley, John Metcalfe, L.S.A., Bury, Lancashire.
Fowler, Charles Owen, L.S.A., Hereford.
Massey, Henry Massey, Camberwell.
Peacock, Robert Knox, M.B. Edin., Oldham.
Pryce, Thos. Davies, Newtown, Montgomeryshire.
Wilson, Reginald William, Rotherhithe.
Willcocks, Arthur Durant, L.S.A., Kensington.
Wilcox, Ernest, M.B. Edin., St. Neots.

[In the list of students who passed the Primary Examination at the College on the 13th inst., Mr. T. A. B. Soden should have been described as belonging to Charing-cross Hospital.]

ROYAL UNIVERSITY OF IRELAND. — The following have passed the First Examination in Medicine of the University:—

Robert James Boyd, Roger Bernard Burke, P. J. Cahill, Thomas Callaghan, David Clarke Campbell, Kenneth J. Campbell, William Henry Carlisle, P. J. Cleary, Richard T. Condon, Alexander Corry, Thomas B. Costello, Joseph Cree, Henry Alfred Cummins, J. H. Curtin, Charles F. Daly, Thomas J. Daly, M. P. Dunles, William Henry Davis, William Demery, J. J. Donnellan, John Francis Eagleton, Thomas Joseph Enright, George Francis Ewens, Edward Fitzgerald Flood, Maurice Foley, Bernard Forde, John Frederick Gordon, Geo. R. Graham, John P. Haines, Henry Harley, Samuel Horneck, John William Irwin, Thomas Kiernan, Daniel T. Lane, Richard Whytock Leslie, Thomas Lusk, Neal M'Bride, Michael M'Carthy, David M'Kee, P. M'Sheffrey, Charles J. Macdonald, Thomas Stephen Mac Mahon, Jas. Richard Mangan, John Meenan, William Milligan, Martin Moloney, Frederick V. Mossman, Daniel Murphy, M. J. Murphy, Albert Thos. Nash, Robt. William Nixon, James P. O'Byrne, Joseph O'Connor, Patrick J. O'Hara, Daniel Joseph O'Keeffe, P. O'Sullivan, M. J. Robinson, Maurice Sisk, Alfred John Smyth, Richd. Henry Spencer, Edwin Alfred Starling, James Simpson Steele, Alfred Edward Thompson, John J. Tobin, Richard Henry Wagner, Hugh Ernest Waide, William Bdw. Wales, J. J. Walsh, William A. Whitelegge, James Dunlop Williamson, Alleyn William Wolfe, Robert Inglewood Wolfe, George Nesbitt Wynne, Richard Thomas Young.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 20th:—

Black, Wm. Jones, Shetford-road, Manchester.
Scanlan, Arthur de Courcy, Hayter-road, Brixton.
Slater, William, Poplar Hospital.
West, John Arthur, Bickley Park, Kent.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Christopher Venning Burgess, London Hospital; Charles Style Humphreys and Herbert Larder, Westminster Hospital; Alexander Gascoigne Wildey, Guy's Hospital.

MALVERN COLLEGE.—We understand that Tuesday, August 1st, is fixed as "Speech Day" at this College

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Library will be closed on Monday, August 7th, and, on account of some extraordinary building repairs, &c., will not reopen till Monday, Sept. 18th next.

VACCINATION GRANT.—Mr. A. Megget, of Scarborough, has received the Government grant of £55 4s., for efficient vaccination in his district (fifth time).

A CONVALESCENT Home for the West of England was opened at Weston-super-Mare on Wednesday. The building will contain 100 beds, and has cost over £11,000. At the luncheon following the formal opening a sum of £230 was contributed towards furnishing the institution.

UCKFIELD COTTAGE HOSPITAL.—The report of the Committee of Management of this hospital states that of the 26 cases admitted during the past year, 19 had been discharged cured, 5 had derived benefit, and 2 remained in the institution. The mortality therefore was *nil*. The fact that the balance-sheet shows a deficit of £37 is to be regretted.

THE Committee of Management of the Royal Aberdeen Lunatic Asylum have been authorised by the Court of the President and Managers of the Royal Infirmary to provide additional accommodation for female lunatics by extending the east wing of the asylum, at an estimated cost of £1600.

AT a meeting last week of the managers of the Cotton Districts Convalescent Fund, presided over by Lord Derby, it was decided to transfer a plot of land adjoining the Convalescent Home at Southport, for the purpose of erecting buildings on it which will connect the old and new hospitals, at present isolated.

THE BAZAAR AT COLSTON HALL, BRISTOL.—The bazaar opened on the 18th inst. in commemoration of the jubilee of the Bristol General Hospital and in aid of its funds, appears to have more than realised what was expected of it by its promoters. The wealth and fashion of the city vied with the trading and industrial elements to ensure the success of the project, by which it is calculated the funds of the hospital will be enriched to the extent of some £3000.

RICHMOND HOSPITAL. — The Duchess of Teck opened new wards at the Richmond Hospital on the 22nd inst. The new buildings form a block 70 ft. in length and 30 ft. in width—exclusive of separate wings for lavatories, bath rooms, &c.,—and rise to a height of over 40 ft. Accompanied by the Duke of Teck and conducted by the medical staff, she made a minute inspection of the wards, and then proceeded to a marquee in the grounds, where she received and briefly responded to an address on behalf of the committee of management, signifying her assent to a proposal that the female ward should be named the Mary Adelaide Ward, and the male ward the Cambridge. Her Royal Highness accepted on behalf of the charity a considerable number of purses, none of them containing less than £5.

SOUTH LONDON SCHOOL OF PHARMACY. — The following prizes have been awarded to the successful competitors at the school examinations held on July 4th, 5th, 7th, and 8th. Senior Chemistry: Mr. Caldecot (medal). Junior Chemistry: Mr. T. B. Tyson (medal). Botany: Miss Mitten (medal). Materia Medica: Mr. F. Ransome (medal). Practical Dispensing and Pharmacy: Mr. C. L. Dillon (medal). Senior Chemistry: Mr. Bain (certificate). Junior Chemistry: Mr. F. Ransome (certificate). Botany: Mr. C. E. Harston (certificate). Materia Medica: Mr. C. E. Harston (certificate). Practical Dispensing and Pharmacy: Mr. T. B. Tyson (certificate). Certificates of Merit were also awarded to Messrs. Dowdeswell, Dillon, Hornby, Schofield, Thomas, and Thistleton.

MANCHESTER ROYAL INFIRMARY.—At the annual meeting of the friends of this hospital on the 27th inst., the trustees were able to give a more favourable report of the financial condition of the institution than was possible last year, a result attributable mainly to an increase in the ordinary annual subscriptions and in the Hospital Saturday and Sunday contributions. There appears to have been a gradual diminution in the cost per bed occupied: ten years ago this was represented by the sum of £74 11*s.* 10*d.*; now it does not exceed £58 7*s.* 6*d.* per bed. A similar decrease in expenditure has also characterised the management of the Cheadle Convalescent Hospital. The total number of patients treated at the infirmary and its associate institutions was for the past year 23,888. Investigation continues to be made into the circumstances of all applicants for hospital relief, with, it would seem, on the whole, satisfactory results.

ROYAL UNIVERSITY OF IRELAND.

EXAMINATION FOR M.D. DEGREE AND DIPLOMA IN OBSTETRICS.
June 22nd, 1882, 9.30 A.M. to 12.30 P.M.

Examiners { Professor J. A. Byrne, M.D., Professor H. McN. Jones, M.D.

Section A.

1. Describe the appearance of an ovum expelled in its integrity from the uterus at the ninetieth day of gestation. Describe in order all its coverings in dissecting it from without inwards, and the appearance and structure of each coat, also the contents of the sac and the exact appearance and size of the embryo at this date.

2. Describe the structure of the uterus at the full term of gestation, the mode of arrangement of its muscular fibres, and the function which one set of those fibres is said to serve, as also the functions of the other muscular strata.

3. At the termination of the third month of pregnancy, and at the termination of the full period, two circumstances may happen which are very serious. What are they, and which would you regard as the more serious?

4. Mention all the actors in producing dilatation of the os uteri in labour.

Section B.

5. What are the principal changes occurring in the blood during pregnancy? State how such deviations are likely to affect the character of a labour.

6. You are called to a woman in the fourth month of pregnancy; there has been severe but periodical hæmorrhage for nearly two days, with expulsion of clots; on making an examination, the os is found slightly dilated. State how you would manage the case.

7. You are called to a woman some hours in labour; there has been severe hæmorrhage; the os uteri is not dilated to the size of a florin; the placental attachment is complete. State how you would conduct the case.

8. You are in attendance on a case in which you have reason to apprehend the occurrence of post-partum hæmorrhage. What preventive measures would you adopt? Should these fail, mention in order the steps you would take to control it.

In the Oral Examination, on the same day, Dr. Byrne asked—(1) Describe the treatment of ruptured uterus in *two words* (2) What is concealed hæmorrhage, and where does it occur? and gave a number of obstetric instruments to have their uses, &c., explained.

GYNÆCOLOGY.

Section A.

1. Describe the different terminations of pelvic cellulitis; describe also the anatomical relations of the uterus to the surrounding organs which may influence each particular mode of exit when puruient formation is the result.

2. How would you distinguish between chronic inversio uteri and polypus uteri? What are the causes of the former affection? What would be your treatment of each?

Section B.

3. Mention the symptoms, course, and treatment of pelvic hæmatocele.

4. Ovarian tumour, fibro-cyst of uterus, ascites. State the leading diagnostic tests to distinguish each.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BOISSIER, ARTHUR HENRY, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the First Pocklington District of the Pocklington Union.

COLEMAN, MATTHEW OWEN, M.D.Aber., M.R.C.S., has been re-appointed Medical Officer of Health to the Surbiton Urban Sanitary District.

COOPER, G. F., M.R.C.S., L.R.C.P., has been appointed Resident Accoucheur to St. Thomas's Hospital.

DUNCAN, W. A., M.D., L.R.C.P., M.R.C.S., has been appointed House-Surgeon to St. Thomas's Hospital.

DYER, HENRY GEARY, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer to the Ringwood Union and Workhouse, vice Samuel S. Dyer, M.D., resigned.

EVANS, FREDERICK WM., M.D., M.R.C.S., L.S.A.Lond., has been appointed Certifying Factory Surgeon for the Cardiff District, vice H. J. Paine, M.D., M.R.C.S., resigned.

FELL, W., M.A., M.B.Oxon., L.R.C.P., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

GIMSON, WILLIAM GIMSON, M.D. St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for Wickham Bishop's District of the Maldon Union.

GOWAN, CHARLES, M.D., C.M., L.R.C.S.Ed., has been appointed Medical Officer for the Newtown District of the Newtown and Llanidloes Union.

HAIG BROWN, C. W., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to St. Thomas's Hospital.

HARRIS, ARTHUR G. RAWSON, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Pembridge District of the Kington Union.

JONES, WANSBROUGH, M.A., M.B. Oxon., B.Sc.Lond., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

MACKEW, S., M.B., has been appointed Assistant Medical Officer to the Roxburgh, Berwick, and Selkirk District Asylum, Melrose, vice L. R. Huxtable, M.B., resigned.

MILTON, H. M., M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Physician to St. Thomas's Hospital.

NIXON, CHRISTOPHER JOHN, M.B.Dub., F.K.Q.C.P.I., has been appointed Visiting Physician to the Dundrum Central Criminal Lunatic Asylum, vice Hughes, deceased.

RICH, ARTHUR CRESWELL, M.B.Lond., M.R.C.S., has been appointed a Medical Officer to H.M. Post Office, Liverpool.

THOMPSON, J. A. BAIRD, M.D., C.M.Glas., has been appointed Medical Officer to the Middleton Cheney District of the Banbury Union.

VIVIAN, GEORGE E., M.R.C.S., has been appointed Medical Officer for the Alne District of the Easingwold Union.

WALKER, J. MCCLURE, M.B., C.M.Glas., has been appointed Medical Officer for the Eastern District and Workhouse of the Haltwistle Union.

WELLS, A. E., L.R.C.P., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

WHITE, EDWARD A., M.D., M.C.Aber., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Malmesbury Union, vice J. C. S. Jennings, F.R.C.S., resigned.

WHITE, E. F., M.R.C.S., L.S.A.Lond., has been appointed House-Physician to St. Thomas's Hospital.

WIGNER, G. W., F.C.S., has been reappointed Public Analyst for the District of Greenwich.

WILLIAMS, CHARLES, L.S.A.Lond., has been appointed Medical Officer for the First District of the Bodmin Union.

WILSON, J. A., M.B., C.M., has been appointed Assistant Medical Officer to the Govan Poorhouse and Asylum, Merryflatts, Govan, vice A. Martin, M.B., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BOISSIER.—On the 19th inst., at Oak House, Pocklington, Yorks, the wife of Arthur H. Boissier, L.R.C.P.Lond., M.R.C.S., of a daughter.

BROWN.—On the 14th inst., at Coombe Lodge, Rye-lane, Peckham, S.E., the wife of J. Alexander Brown, M.R.C.S., of a daughter.

DICKSON.—On the 19th inst., at South View, St. Helier's, Jersey, the wife of John Edward Dickson, M.B., C.M.Ed., of a son.

HABGOOD.—On the 23rd inst., at Stafford House, Eastbourne, the wife of Henry Habgood, M.D., of a son.

MARTIN.—On the 19th inst., at Richmond, Limerick, the wife of Surgeon-Major W. T. Martin, M.D., of a daughter.

MECREDY.—On the 11th ult., at Calle Morelos, Pachuca, Hidalgo, Mexico, the wife of Robert H. Mecredy, M.D. &c., of a son.

SHAPTER.—On the 19th inst., at Barnfield-crescent, Exeter, the wife of Lewis Shapter, M.D., of a daughter.

SNOW.—On the 22nd inst., at Bayswater, the wife of Herbert L. Snow, M.D.Lond., of a son.

SYMES.—On the 23rd inst., at Wards End, Halifax, the wife of Edmond West Symes, M.D., of a daughter.

MARRIAGES.

ALLEN—KING.—On the 21st ult., at St. Cyprian's Church, Durban, Natal, by the Right Rev. the Lord Bishop of Maritzburg, assisted by the Rev. Joseph Taylor, of Richmond, Robert Allen, L.R.C.S.I., L.R.C.P.Ed., &c. &c., of Pietermaritzburg, eldest son of the late Capt. Allen, H.C.S., of Dublin, Ireland, to Clara Elvira (Ella), second daughter of the late Mr. Richard King, of Isipingo, Durban County, Natal.

BRODRICK—CROCKFORD.—On the 20th inst., at the Parish Church, Peasmarsh, Sussex, Charles Cumberland Brodrick, L.R.C.P. and L.R.C.S., son of Charles Cumberland Brodrick, Esq., Paymaster, Royal Navy, to Julia Selina, youngest daughter of Henry Crockford, Esq., of Flackley Ash, Sussex.

HART—BERTHON.—On the 20th inst., at St. Mark's, Woolston, William Hamilton Hart, M.R.C.S., L.S.A., eldest son of J. H. G. Hart C.E., Poona, Bombay, to Frances Elizabeth Margaret, eldest daughter of E. P. Berthon, of Woolston, Southampton.

REES—LEWIS.—On the 14th inst., at St. Mary's Church, Port Elizabeth, Frederick Musson Rees, M.D., J.P., of Bedford, South Africa, to Clare, daughter of W. Lewis, Crewe.

RICHARDSON—ETHERIDGE.—On the 13th inst., at the Parish Church, Ramsgate, Thomas William Richardson, M.R.C.S., of Surrey-street, Norwich, to Rose Louise, second daughter of Major-General A. T. Etheridge, C.S.I., late Bombay Staff Corps.

TEMPLETON—ALLEN.—On the 11th inst., at St. John's Church, Malone, R. Stanser, eldest son of Robert Templeton, Esq., Dep. Insp.-Gen., F.R.C.S.I., Cranmore, Belfast, to Jane, eldest daughter of Arthur Chichester Allen, J.P., Collin, county Antrim.

DEATHS

ATKINSON.—On the 18th inst., at Broadstairs, John Charles Atkinson, L.R.C.P., M.R.C.S., &c. (son of J. C. Atkinson, M.D., of Kew-green), aged 32.

BARTLEY.—On the 21st inst., at his residence, Norwood House, Weston-super-Mare, Robert T. Hawley Bartley, M.D., late of Clifton, Bristol, aged 62.

CORMACK.—At 364, Rue St. Honoré, Paris, Lady Cormack (Eliza Ann), née Hine, widow of the late Sir John Rose Cormack, M.D.

HIGHAM.—On the 23rd inst., at Lauderdale House, Northcote-road, Wandsworth, Joseph Higham, Esq., Surgeon, aged 42.

JORDISON.—On the 20th inst., at South Ockendon, Essex, Eliza Frances, widow of Robert Binks Jordison, Surgeon. Friends will please accept this intimation.

OSWALD.—On the 22nd inst., at 245, Kennington-road, London, S.E., Louisa Ann, wife of James W. J. Oswald, M.D., F.R.C.S.E., aged 53.

POPPLETON.—On the 24th inst., at The Grange, Horsforth, Leeds, Joe William Poppleton, F.R.C.S.Lond., for forty years Certifying Surgeon under the Factory Acts for the Bradford District, aged 67.

TAYLOR.—On Feb. 6th, at Goulburn, New South Wales, Charles Lamb Taylor, M.D., eldest son of the late Samuel and Elizabeth Taylor, of Newark-upon-Trent, aged 31.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

SANITATION AT VENTNOR.

A propos of a criticism that appeared some time ago on the sanitary state of Ventnor, *Medicus*, in a letter addressed to us, remarks:—"Attention having been directed in 1875 to the danger then existing in the town of Ventnor, not only as regarded the want of proper sanitary arrangements, but also the risk incurred from an intermittent and inadequate water-supply, the authorities were roused to take steps for the institution of a house-to-house inspection, but which was unfortunately allowed to fall through before completion, and no further effort was made until the official report of Dr. Ballard, when the authorities, instead of kicking against the inevitable, wisely determined to put their house in order, with the striking result of reducing the death-rate from 29·4 in 1880 to 18·3 in 1881: a return which, after eliminating the number of deaths of those who came to Ventnor as strangers in the last stage of disease, shows the gratifying result that the death-rate of the inhabitants proper amounts only to 9·6 per 1000. . . . . The difficulties with which local boards have to contend is not so much in the matter of the main drainage as in the connexions and appliances of private houses. And it would be well were the Legislature to amend in many respects the present Health of Towns Act, and render compulsory a house-to-house inspection, of which a record should be kept by the local authority, and such inspection should be annual. . . . . Before leaving the question of sanitary arrangements, I feel bound to mention a circumstance that not only marks the progress of Ventnor, but which must tend to improve it greatly in a sanitary point of view—namely, the erection of a large steam washing establishment. It covers a considerable area, is fitted with all the most recent and approved appliances, and embraces, what is of the highest value, a proper chamber for disinfecting purposes. The establishment would appear large enough not only to supply the wants of Ventnor and its immediate neighbourhood, but also those of the adjoining towns of Shanklin and Sandown. To the public the gain is immense. Instead of the clothes being confined to the manipulation of a single tub, they are passed through several waters, and thus properly cleansed, while the appliances for drying, ironing, mangling, &c., are on a scale that attains a perfection which it is impossible to obtain from the ordinary laundress. The dangers which arise for the spread of disease through the common laundress is well known to every medical man, and I need only instance an occurrence which took place some time since, in which a laundress was detected pinning out some curtains over the bed of a party recovering from scarlet fever while the desquamation of the skin was in its most active form."

OBSCURE SKIN DISEASE.

To the Editor of THE LANCET.

SIR,—I shall feel indebted to any of my medical brethren who will assist me in the diagnosis and treatment of the following case:—

A. B——, aged thirty-six, married, healthy constitution, contracted syphilis about twelve years since. Six years subsequently appeared a discoloration of skin, resembling a light walnut stain. Parts principally affected are back and around umbilicus. My patient has been prescribed for by some eminent practitioners without avail.

I am, Sir, yours faithfully,

July 25th, 1882. ENQUIRENS.

SCENES AT THE HOSPITAL IN ALEXANDRIA.

A CORRESPONDENT of a Liverpool paper thus describes a scene he witnessed in his walks about the Egyptian city:—

"I went up to the Arab hospital recently, with Dr. Bell, of the *Helicon*, and a party of blue jackets, to inspect and take measures for relieving the wounded, whom we had heard were without medical attendance, or even the bare necessaries of life. The scene on our arrival more than justified this statement. There were thirty-two wounded, including six women, some in a frightful condition. Most of the poor wretches were suffering from gunshot wounds or shell splinters. Three or four were in a state too horrible to describe. Their wounds had not been dressed for three days, and human aid could avail nothing."

Fairplay is thanked for his communication, but we do not think it would be in the interest of the service to publish it.

F. A. D.—No.

Diploma.—The superintendent of Bethnal House Asylum, Cambridge-road, London.

THE MEDICAL COUNCIL AND ITS FUNCTIONS.

To the Editor of THE LANCET.

SIR,—Your article in last week's LANCET on the dormant powers of the Medical Council will meet, I am sure, the approbation of the right-thinking part of the profession. There is another kindred point I think the Council might also take into their serious consideration. I allude to what takes place—I fear, not uncommonly—in the sale of practices. It seems to me that in many cases common honesty is deliberately set aside and deeds done which in any other section of the community would be visited with the severest reprobation. We call ours a noble profession. Should not this, therefore, be a strong reason why all who wish well to the profession should raise a protest against what I am afraid is a growing evil? I shall be glad if this letter will elicit your views and those of the profession on this subject.

I am, Sir, yours truly,

July 25th, 1882. X.

Medicus is referred to the article on Books in our Students' Number, Sept. 10th, 1881.

Nemo.—Grailly Hewitt, in vols. 1 and 2 of the Obstetrical Transactions.

Dr. Allan Jamieson.—Yes.

Mr. G. Abbott (Tunbridge Wells).—The paper will be inserted as early as possible after receipt of the block.

DEATH FROM CHLOROFORM.

To the Editor of THE LANCET.

SIR,—In reference to your report of the two cases of death from chloroform, I find one was a man of the name of Sidders, operated on at the Canterbury Hospital, from whom I removed, some four or five years ago, one of the great toes, under the influence of chloroform, from the effects of which he soon recovered, and the case terminated most satisfactorily. This, I think, shows that although a person may at one time inhale chloroform with impunity, no one can with certainty say it can be administered a second time without some risk or danger.

I am, Sir, yours obediently,

Folkestone, July 25th, 1882. ALLEN DUKE.

Thesis.—We have not at hand a list of the subjects for which prizes are offered.

Mr. H. A. Smith (Mere).—The paper is under consideration.

"THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

To the Editor of THE LANCET.

SIR,—Personally my observations, so far as they go, bear out Dr. Atkinson's views. Three times I have had severe attacks, and twice mild ones, always either in May or June. On each occasion either a stress of work or some mental anxiety, coupled with an irregularity of diet, have preceded the attack. The same is true of a case which has occurred during the past week in my house. The patient is a Cambridge man, and has recently been in for examination, and in his case also considerable irregularity of diet preceded the attack.

I am, Sir, yours faithfully,

Warwick, July 24th, 1882. KENNETH W. MILLICAN, B.A.

Mr. W. Davis.—We have no record of the receipt of the communication.

M.D. (Greenock).—The subject of our correspondent's letter is under consideration, and shall have attention next week.

SEWER VENTILATION.

To the Editor of THE LANCET.

SIR,—Will some one of your engineering correspondents kindly give plan and action of "disconnected chamber" for ventilating sewers? Builders in country towns are ill-informed on the subject.

I am, Sir, yours obediently,

Hitchin, July 24th, 1882. O. T.

Martin.—No licence is required for a single patient. On receipt of papers, notice must be sent to the commissioners. That is all. Two or more patients would require a licence, for which application must be made, in the first instance, to the Commissioners in Lunacy, at Whitehall, London.

Mr. C. Roberts.—As early as possible.

CORRIGENDUM.—In the second line of Mr. Hume's article on Ectropion, page 100, for "cornea" read *arm*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. N. Cook, London; Mr. Chute, King William's-town; Dr. Buchanan, Glasgow; Mr. Larmuth, Manchester; Dr. Perkins, Exmouth; Mr. W. E. Bailey, Manchester; Dr. Roe, Patricroft; Mr. G. Abbott, Tunbridge Wells; Mr. J. Rorke, London; Mr. Scammell, Bristol; Mr. Clifford Allbutt, Leeds; Mr. Wilkinson, Rotherham; Dr. Sturges, London; Mr. Smith, Mere; Dr. Thomas, Glasgow; Mr. Millican, Kineton; Dr. Heywood Smith, London; Messrs. Evans, Sons, and Co.; Mr. Roe, Droitwich; Mr. W. J. Collins, London; Dr. Marcy; Mr. O. Foster; Mr. Carroll, London; Dr. Whelan, Loughrea; Dr. Bampton, Plymouth; Mr. Yelf; Mr. G. H. Thomas, London; Dr. Pearson, Maryport; Dr. Bennett, Liverpool; Mr. Wise; Dr. Warner, London; Mr. Duncan, Oldham; Mr. G. N. Stephens, London; Mr. W. Davis; Mr. Langton, London; Mr. Lediard, Carlisle; Mr. Waller, Rugby; Mr. Bailey, Crumpsall; Mr. Vincent Richards, Calcutta; Messrs. Thomas Pratt and Sons, London; Miss Stroad, Bristol; Mr. Codling, St. Albans; Mr. Bulmer, Hereford; Surgeon-Major Ellis, Wardha; Messrs. Thew and Son, King's Lynn; Mr. Gostrooke, Birmingham; Mr. Grayham, Pendlebury; Messrs. Pratt and Son, London; Mr. Trotman, Tunbridge Wells; Dr. Stanley Murray, Putney; Dr. J. B. Gill, Canterbury; Dr. Duke, Folkestone; Mr. Thomson, Dublin; Dr. Goodhart, London; Thesis; One of the Public; L.R.C.P.; H. A. D.; Student; X. Z.; Fairplay; Devoniensis; Mac; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Scott, Manchester; Messrs. Porteous and Co., Glasgow; Messrs. Richards and Co., London; Mr. Johnson, Shrewsbury; Mr. Pullen, Budleigh, Salterton; Mr. Amplisen, Ilchester; Mr. Scatchard, Woodhall Spa; Mrs. Moffat, Hawarden; Dr. Maskew, Lyndhurst; Messrs. Smith and Son, Dublin; Mr. Newey, Dudley; Dr. Rice, Claremont, U.S.A.; Messrs. Fannin and Co., Dublin; Mr. Piet, Baltimore; Messrs. Reid and Co., London; Dr. Scriven, Duffield; Mr. De Fraine, Aylesbury; Mr. King, Lancaster; Mr. Standart; Mr. Milne, Ladywell; Mr. Veale; Mr. Harrison, Liverpool; Mr. Sutherland, Burnockfield; Mr. Hyatt, Gosport; Mr. Hutcheon, Derby; Mr. Hallowes, Newark; Dr. Hern, Darlington; Mr. Marriott, Nottingham; Mr. Brown, Westgate-on-Sea; Mr. Bennett, London; Mr. Shepperson, Brighton; Mr. Evatt, Selkirk; Mr. Jones, New Cross; Messrs. Rowse and Co., London; Dr. Shirtliff, Kingston-on-Thames; Dr. Bager, Penicuick; Dr. Jones, Resolven; Mr. Jardine, Birmingham; Mr. Allinson, Kingsland; Mr. Williams, Pwlheli; Medicus, Exeter; M.D., Chalk Farm; Medicus, Liverpool; X.; Y.; Medicus, Lenty; Alpha, Caledonian-road; Delta; W. G., Manchester; F. C., Southsea; J. W. P., Holborn; C., Cheltenham; J. O.; A. E. T., Darlington; New North-road; Medicus, Mile-end-road; Chemist; M.D., Piccadilly; Pupil, London; T. W. F., Matlock; L. T.; E. G., Worcester; W. A. E.; Diagnosis; &c., &c.

South Wales Daily News, Liverpool Mercury, Eastern Provinces Herald, Daily Intelligencer, Scottish Border Record, Newport and Market Drayton Advertiser, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 27th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 5.30 A.M.
July 21	30·04	W.	62	58	112	72	51	..	Hazy
,, 22	29·84	W.	61	59	92	68	57	..	Overcast
,, 23	29·67	S.W.	58	57	121	73	53	..	Bright
,, 24	29·81	W.	63	58	119	72	52	..	Bright
,, 25	29·85	W.	58	56	88	65	52	..	Raining
,, 26	30·23	W.	60	56	116	71	51	·11	Cloudy
,, 27	30·44	W.	65	59	115	79	52	..	Bright

Medical Diary for the ensuing Week.

Monday, July 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, August 1.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, August 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, August 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, August 4.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, August 5.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Half a Page	2	15	0
An entire Page	5	5	0

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.